

VOL. V.

SEPT., 1852.

NO. 3.

# THE PLOUGH

THE LOOM AND THE ANVIL.

F. G. SKINNER AND MYRON FINCH, EDITORS.

MOSES P. PARISH, ASSISTANT EDITOR.

DEVOTED TO SCIENTIFIC AND PRACTICAL AGRICULTURE—MANUFACTURES—  
MECHANICS—NEW INVENTIONS—A SOUND PROTECTIVE POLICY—FARM  
BUILDINGS—COTTAGE DESIGNS—FRUIT TREES—FLOWERS—GAR-  
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# The Plough, the Loom, and the Anvil.

EDITED BY F. G. SKINNER AND MYRON FINCH.

**MOSES P. PARISH, Assistant Editor and General Agent.**

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## CONTENTS OF NO. III.—VOL. V.

British Free Trade in Ireland, . . . . .	129	Horticulture, . . . . .	1
Peach Trees. By Hon. R. B. Hubbard, . . . . .	145	Preparation of Swamp Muck, . . . . .	1
Cottage Designs, with Plate, . . . . .	147	Bark Silk, . . . . .	1
Preparation of Soils for Potting, . . . . .	147	The proper period to apply Liquid Manure, . . . . .	1
How to Stimulate the Production of Cotton, . . . . .	149	NEW BOOKS, . . . . .	1
Notes of a Western Tourist. By Rev. R. Sewell, . . . . .	150	The Natural History of Man—Harper's Magazine—First	
How to Enrich the Few and Impoverish the Many, . . . . .	161	Book in Physiology, with Anatomy and the Laws of Hy-	
Growth of Wood and of Fruit—Circulation, &c., . . . . .	162	giene—Meyer's Universum—New Music.	
The Thorny Mulberry. By N. D. Smith, . . . . .	164	EDITORS' JOTTINGS, . . . . .	1
Harvesting Machines, . . . . .	165	A. J. Dowling, Esq.—Fattening Cattle in Stalls and in	
Ireland, Turkey, and Russia, . . . . .	166	Sheds—Hat Finishers' Union—Bone Dust vs. Leached	
Is it Wise for the Farmer to Incur Debts in the Improve- . . . . .	167	Ashes—Post Office System and Postages—An Idea in	
ment of his Lands? By Hon. R. B. Hubbard, . . . . .	167	Growing Root Crops—Amber—The World's Fair in	
Population and Industry, . . . . .	169	New-York—Growth of Chicago—Sale of Oats—Cost of	
Physical Condition of Soils, . . . . .	170	Legislatures—British Iron Trade—Buck Numbers wanted	
Woman, . . . . .	171	—Bruising Apples—Musical, Sontag and Alboni—	
Wheat—The Cheapest Mode of Raising it, . . . . .	172	Thanksgiving in New-Hampshire.	
How the Water boiled away from the Potatoes. By J. B. . . . .	173	TOPICS OF THE PRESS, . . . . .	1
Newman, M. D., . . . . .	173	The Latest Labor Saving Machine—Agricultural Fairs	
Wool and Stock Interests of Illinois, . . . . .	176	in 1852—Curing Beef in Texas—Ridding Feathers of	
The Minerals of Lamoille Co., Vt. By Dr. Hunton, . . . . .	176	Animal Oil—Cost of the Corn Crop in the West—Rise	
Culture of Cotton, . . . . .	177	of Lake Erie—Machine for Weaving Bags—Catching	
Lands in New-England, Feldspar. By J. Robinson, . . . . .	178	Flies—Old Knives and Forks—To Remove Ants.	
Improvements in the West, . . . . .	179		
Corn Culture. By L. Durand, . . . . .	181		
Tonks Useful, . . . . .	182		

## INDEX TO ADVERTISEMENTS. NO. III.—VOL. V.

Agricultural and General Book Store. John P. Jewett & Co., Boston. . . . .		Sale of Short-Horn Cattle, Troy, N. Y. Mr. Vail. . . . .	
Massachusetts Horticultural Seed Store. Azell Bowditch, Boston. . . . .		Pilositous Compound. F. McCracken, New-York. . . . .	1
Piano Fortes. Safford & Brother, New-York. . . . .		Fruit Trees. Isaac Pullen, Hightstown, N. J. . . . .	1
Salamander Safes. C. J. Gayler. . . . .		Clothing Store. Henry L. Foster, New-York . . . . .	1
Philadelphia, Wilmington, and Baltimore R. R. H. H. Hud- . . . . .		Improved Melodeon. W. Hall & Son, New-York . . . . .	1
dell, Agent. . . . .		N. Y. Life Insurance Company. Morris Franklin, President, New York. . . . .	1
Hudson River R. R. George Stark, Supt. . . . .		Manhattan Life Insurance Company. A. A. Alvord. Presi- . . . . .	2
New-York and Erie R. R. Charles Minot, Supt. . . . .		dent, New-York . . . . .	2
Bay State R. R., Boston, via Newport and Fall River. Tie- . . . .		Mechanics' Union Association. M. B. Denn, President, New-York . . . . .	2
dale & Borden, Agents, 71 West Street, . . . . .		Mechanics' Mutual Benefit Association. S. C. Frink, Secre- . . . . .	3
Camden and Amboy R. R. W. H. Gatzmer, Agent . . . . .		tary, New-York . . . . .	3
New-York and New-Haven R. R. Geo. W. Whistler, Supt. . . . .		Platform Scales. Fairbanks & Co., St. Johnsbury, Vt., and New-York . . . . .	3
New-York and Harlem R. R. . . . .		Lots and Farms on Long Island. Chas. Wood, New-York. . . . .	3
Farmer's Boilers. Bartlett, Bent & Son, New-York . . . . .		Fire-proof Paint. William Blake, New-York. . . . .	4
Scientific Books. Henry Carey Baird, Philadelphia. . . . .		Ohio Fire-proof Paint. W. H. Starr, New-York . . . . .	4
Agricultural Warehouse. Ralph & Co., New-York. . . . .		Patent Salamander Safes. Stearns & Marvin, New-York. . . . .	4
Improved Short-horn Cattle. Aaron Clement, Philadelphia. . . . .		National Miniature Gallery. M. B. Brady, New-York. . . . .	5
Cotton and Woollen Machinery. Andrews & Jessup, New-York. . . . .		Hugh Cameron, Agent for Sale of Publications, Washing- . . . . .	5
Designing and Engraving on Wood. J. F. Badeau, New-York . . . . .		ton. . . . .	

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# The Plough, the Loom, and the Anvil.

VOL. V.

SEPTEMBER, 1852.

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## BRITISH FREE TRADE IN IRELAND.

"I REMEMBER, when I saw the poor Lettes in Livonia, I used to pity them for having to live in huts built of the unhewn logs of trees, the crevices being stopped up with moss. I pitied them on account of their low doors, and their diminutive windows; and gladly would I have arranged their chimneys for them in a more suitable manner. Well, Heaven pardon my ignorance. I knew not that I should ever see a people on whom Almighty God had imposed yet heavier privations. Now that I have seen Ireland, it seems to me that the Lettes, the Esthonians, and the Finlanders, lead a life of comparative comfort, and poor Paddy would feel like a king with their houses, their habiliments, and their daily fare.

"A wooden house, with moss to stop up its crevices, would be a palace in the wild regions of Ireland. Paddy's cabin is built of earth, one shovelful over the other, with a few stones mingled here and there, till the wall is high enough. But perhaps you will say, the roof is thatched or covered with bark. Ay, indeed! A few sods of grass, cut from a neighboring bog, are his only thatch. Well, but a window or two at least, if it be only a pane of glass fixed in the wall, or the bladder of some animal, or a piece of tale, as may often be seen in a Wallachian hut? What idle luxury were this! There are thousands of cabins in which not a trace of a window is to be seen; nothing but a little square hole in front, which doubles the duty of door, window, and chimney; light, smoke, pigs, and children, all must pass in and out of the same aperture!

"A French author, Beaumont, who had seen the Irish peasant in his cabin, and the North American Indian in his wigwam, has assured us that the savage is better provided for than the poor man in Ireland. Indeed, the question may be raised, whether in the whole world a nation is to be found that is subjected to such physical privations as the peasantry in some parts of Ireland. This fact cannot be placed in too strong a light; for if it can once be shown that the wretchedness of the Irish population is without a parallel example on the globe, surely every friend of humanity will feel himself called on to reflect whether means may not be found for remedying an evil of so astounding a magnitude!

"A Russian peasant, no doubt, is the slave of a harder master, but still he is fed and housed to his content, and no trace of mendicancy is to be seen in him. The Hungarians are certainly not among the best used people in the world; still, what fine wheaten bread, and what wine, has even the humblest among them for his daily fare! The Hungarian would scarcely believe it, if he were to be told there was a country in which the inhabitants must content themselves with potatoes every alternate day in the year.

"Servia and Bosnia are reckoned among the most wretched countries of Europe, and certainly the appearance of one of their villages has little that is attractive about it: but at least the people, if badly housed, are well clad. We look not for much luxury or comfort among the Tartars of the Crimea; we call them poor and barbarous, but, good heavens! they look at least like human creatures. They have a national costume, their houses are habitable, their orchards are carefully tended, and their gaily-harnessed ponies are mostly in good condition. An Irishman has nothing national about him but his rags,—his habitation is without a plan, his domestic economy without rule or law. We have beggars and paupers among us, but they form at least an exception: whereas, in Ireland, beggary or abject poverty is the prevailing rule. The nation is one of beggars, and they who are above beggary seem to form the exception.

"The African negroes go naked, but then they have a tropical sun to warm them. The Irish are little removed from a state of nakedness; and their climate, though not cold, is cool, and extremely humid.

"The Indians in America live wretchedly enough at times, but they have no know-

ledge of a better condition, and, as they are hunters, they have every now and then, a productive chase, and are able to make a number of feast-days in the year. Many Irishmen have but one day on which they eat flesh, namely, on Christmas-day. Every other day they feed on potatoes, and nothing but potatoes. Now this is inhuman; for the appetite and stomach of man claim variety in food, and nowhere else do we find human beings gnawing from year's end to year's end, at the same root, berry, or weed. There are animals that do so, but human beings nowhere except in Ireland.

"There are nations of slaves, but they have, by long custom, been made unconscious of the yoke of slavery. This is not the case with the Irish, who have a strong feeling of liberty within them, and are fully sensible of the weight of the yoke they have to bear. They are intelligent enough to know the injustice done them by the distorted laws of their country; and while they are themselves enduring the extreme of poverty, they have frequently before them, in the manner of life of their English landlords, a spectacle of the most refined luxury that human ingenuity ever invented.

"What awakens the most painful feelings in travelling through one of these rocky, boggy districts, rich in nothing but ruins, is this:—Whether you look back into the past, or forward to the future, no prospect more cheering presents itself. There is not the least trace left to show that the country has ever been better cultivated, or that a happier race ever dwelt in it. It seems as if wretchedness had prevailed there from time immemorial—as if rags had succeeded rags, bog had formed over bog, ruins had given birth to ruins, and beggars had begotten beggars, for a long series of centuries. Nor does the future present a more cheering view. Even for the poor Greeks under Turkish domination, there was more hope than for the Irish under the English."—*Kohl's Travels in Ireland*.

The picture here given is from the pen of an accomplished German traveller, who had visited and described most of the countries of Europe; but who had nowhere found the squalor and wretchedness that prevailed among the people of that important portion of the British Empire, called Ireland. And yet he travelled eight or ten years since, before the ravages of famine and pestilence had been so fully experienced as not only to have arrested the progress of population, but actually to have diminished it to a point lower than that at which it stood thirty years since. The numbers of the last four censuses have been as follows:—

1821.....	6,801,827
1831.....	7,767,401
1841.....	8,175,124
1851.....	6,515,794

To what causes may this extraordinary course of events be attributed? Certainly not to any deficiency of land, for nearly one-third of the whole surface, including millions of acres of the richest soils of the kingdom, remain in a state of nature. Not to original inferiority of the soil in cultivation, for it has been confessedly among the richest in the empire. Not to a deficiency of mineral ores or fuel, for coal abounds, and iron ores of the richest kind, as well as those of other metals, exist in vast profusion. Not to any deficiency in the physical qualities of the Irishman, for it is an established fact that he is capable of performing far more labour than the Englishman, the Frenchman, or the Belgian. Not to a deficiency of intellectual ability, for Ireland has given to England her most distinguished soldiers and statesmen; and we have in this country everywhere evidence that the Irishman is capable of the highest degree of intellectual improvement. Nevertheless, while possessed of every advantage that nature could give him, we find the Irishman at home a slave to the severest taskmasters, and reduced to a condition of poverty and distress such as is exhibited in no other portion of the civilized world. No choice is now left him but between expatriation and

starvation, and therefore it is that we see him now everywhere abandoning the home of his fathers, to seek elsewhere that subsistence which Ireland, rich as she is in soil and in her minerals, in her navigable rivers, and in her facilities of communication with the world, can no longer afford him.

To enable us to understand the causes of this extraordinary state of things, we must study the colonial system of England; that system which has for its object the conversion of all the people of the rest of the world into farmers and planters, dependant upon Manchester and Birmingham, Leeds and Sheffield, for a market for their products, and for a market in which to purchase the machinery of cultivation, and the clothing of the cultivator, his wife and his children.

The government which followed the completion of the Revolution of 1688, pledged itself to discountenance the woollen manufacture of Ireland, with a view to compel the export of raw wool to England, whence its exportation to foreign countries was prohibited; the effect of which was, of course, to enable the English manufacturer to purchase it at his own price. From that period forward we find numerous regulations as to the ports from which alone woollen yarn or cloth might go to England, and the ports of the latter through which it might come; while no effort was spared to induce the people of Ireland to abandon woollens and take to flax. Laws were passed prohibiting the export of Irish cloth and glass to the colonies. By other laws Irish ships were deprived of the benefit of the navigation laws. The fisheries were closed against them. No sugar could be imported from any place but Great Britain, and no drawback was allowed on its exportation to Ireland; and thus was the latter compelled to pay a tax for the support of the British government, while maintaining its own. All other colonial produce was required to be carried first to England, after which it might be shipped to Ireland; and as Irish shipping was excluded from the advantages of the navigation laws, it followed that the voyage of importation was to be made in British ships, manned by British seamen, and owned by British merchants, who were thus authorized to tax the people of Ireland for doing their work, while a large portion of the Irish people were themselves unemployed.

While thus prohibiting the growth of manufactures or of trade, every inducement was held out to them to confine themselves to the production of commodities required by the English manufacturers, and wool, hemp, and flax were admitted into England free of duty; and thus we see that the system of that day in reference to Ireland was almost precisely what it is now in reference to the world at large.

During our War of the Revolution, freedom of trade was claimed for Ireland; and as the demand was made at a time when a large portion of her people were under arms as volunteers, the merchants and manufacturers of England, who had so long forced themselves into the situation of middlemen for the people of the sister kingdom, found themselves compelled to remove some of the restrictions under which the latter had so long remained. Step by step changes were made, until at length, in 1783, Ireland was declared independent. Thenceforward we find manufactures and trade making progress; and such continued to be the case, until, by the Act of Union, the country was reduced to the condition of a mere colony, without the enjoyment of any single right for which these colonies had contended. The Copyright Laws of England were extended to Ireland, and at once the large and growing manufacture of books was prostrated.\* The Patent Laws were

\* Perhaps the most striking illustration of the changed circumstances of Ireland



extended to Ireland; and as England had so long monopolized to herself the manufacturing machinery then in use, it was clear that it was there the improvements would be made, and that thenceforth the manufactures of Ireland must retrograde. Manchester had the home market, the foreign market, and, to no small extent, that of Ireland open to her; while the manufacturers of the latter were forced to contend for existence, and under the most disadvantageous circumstances, on their own soil, as is now the case with the manufacturers of cloth and iron in this country. The one could afford to purchase expensive machinery, and to adopt whatever improvements might be made, while the other could not. The natural consequence was, that Irish manufactures gradually disappeared as the Act of Union came into effect. By virtue of its provisions, the duties established by the Irish Parliament for the purpose of protecting the farmers of Ireland in their efforts to bring the loom and the anvil into close proximity with the plough and the harrow, were gradually to diminish, and British free-trade was to be fully established; or, in other words, Manchester and Birmingham were to have a monopoly of supplying Ireland with cloth and iron. The duty on English woollens was to continue twenty years. The almost prohibitory duties on English calicoes and muslins were to continue until 1808; after which they were to be gradually diminished, until in 1821 they were to cease. Those on cotton yarn were to cease in 1810. The effect of this in diminishing the demand for Irish labour, is seen in the following comparative view of manufactures at the date of the Union, and at different periods in the ensuing forty years, here given:

Dublin, 1800,	Master woollen manufacturers,....	91	...	1840,	12
"	Hands employed,.....	4918	...	"	602
"	Master wool-combers,.....	30	...	1834,	5
"	Hands employed,.....	230	...	"	66
"	Carpet manufacturers,.....	13	...	1841,	1
"	Hands employed,.....	720	...	"	none.
Kilkenny, 1800,	Blanket manufacturers,.....	56	...	1822,	42
"	Hands employed,.....	3000	...	"	925
Dublin, 1800,	Silk-loom weavers at work,.....	2500	...	1840,	250
Balbriggan, 1799,	Calico looms at work,.....	2000	...	1841,	226
Wicklow, 1800,	Hand-loomers at work,.....	1000	...	1841,	none.
Cork, 1800,	Braid weavers,.....	1000	...	1834,	40
"	Worsted weavers,.....	2000	...	"	90
"	Hosiers,.....	300	...	"	28
"	Wool-combers,.....	700	...	"	110
"	Cotton weavers,.....	2000	...	"	200
"	Linen check weavers,.....	600	...	"	none.
"	Cotton spinners, bleachers, } calico printers,..... }	thousands	...	"	none.

"For nearly half a century Ireland has had perfectly free trade with the richest country in the world; and what" says the author of a recent work of great ability, "has that free trade done for her? She has even now," he continues, "no employment for her teeming population except upon the land. She ought to have had, and might easily have had, other and various

since the Union, is to be found in the diminished consumption of books. Prior to 1800, a large portion of the valuable books published in England, were reprinted across the channel; and evidence of this may especially be found on an examination of any of our old law libraries, where almost all the reporters of that period, as well as many of the most valuable treatises, will be found to be of Irish editions. It may be doubted if the whole quantity of books sold in Ireland at this time is equal to that which before the Union was published by a single house.

employments, and plenty of it. Are we to believe," says he, "the calumny that the Irish are lazy and won't work? Is Irish human nature different from other human nature? Are not the most laborious of all labourers in London and New York, Irishmen? Are Irishmen inferior in understanding? We Englishmen who have personally known Irishmen in the army, at the bar, and in the church, know that there is no better head than a disciplined Irish one. But in all these cases, that master of industry, the stomach, has been well satisfied. Let an Englishman exchange his bread and beer, and beef and mutton, for no breakfast, for a lukewarm lumper at dinner, and no supper. With such a diet, how much better is he than an Irishman—a Celt, as he calls him? No, the truth is, that the misery of Ireland is not from the human nature that grows there—it is from England's perverse legislation, past and present."\*

Deprived of all employment, except in the labour of agriculture, land became, of course, the great object of pursuit. "Land is life," said, most emphatically, Chief Justice Blackburn; "and the people had before them the choice between the occupation of land, *at any rent*, or *starvation*. The lord of the land was thus enabled to dictate his own terms, and therefore it has been that we have heard of the payment of five, six, eight, and even as much as ten pounds per acre." "Enormous rents, low wages, farms of an enormous extent, let by rapacious and indolent proprietors to monopolizing land-jobbers, to be relet by intermediate oppressors, for five times their value, among the wretched starvers on potatoes and water," led to a constant succession of outrages, followed by Insurrection Acts, Arms Acts, and Coercion Acts, when the real remedy was to be found in the adoption of a system that would emancipate the country from the tyranny of the spindle and the loom, and permit the labour of Ireland to find employment at home.

That employment could not be had. With the suppression of Irish manufactures the demand for labour had disappeared. We have now before us the work of a highly intelligent traveller, describing the state of Ireland in 1834, thirteen years after the free-trade provisions of the Act of Union had come fully into operation, from which we shall now give some extracts, showing that they were compelled to remain idle, although willing to work at the lowest wages—such wages as could not by any possibility enable them to do more than merely sustain life, and perhaps not even that.

Cashel.—"Wages here only *eightpence a day*, and numbers altogether without employment."

Cahir.—"I noticed, on Sunday, on coming from church, the streets crowded with labourers, with spades and other implements in their hands, standing to be hired; and I ascertained that any number of these men might have been engaged, on constant employment, at *sixpence per day* without diet."

Wicklow.—"The husband of this woman was a labourer, at *sixpence a day*, *eighty* of which sixpences—that is, eighty days' labour—were absorbed in the rent of the cabin." "In another cabin was a decently dressed woman with five children, and her husband was also a labourer at *sixpence a day*. The pig had been taken for rent a few days before." "I found some labourers receiving only *fourpence per day*."

Kilkenny.—"Upwards of 2000 persons totally without employment." "I visited the factories that used to support 200 men with their families, and how many men did I find at work? ONE MAN! In place of finding men occupied, I saw them in scores, like spectres, walking about, and lying about the mill. I saw immense piles of goods completed, but for which there was no sale. I saw heaps of blankets, and I saw every loom idle. As for the carpets which had excited the jealousy and the fears of Kidderminster, not one had been made for seven months. To convey an idea of the destitution of these people, I mention, that when an order recently arrived for

\* Sophisms of Free Trade, by J. Barnard Byles, Esq.

the manufacture of as many blankets for the police as would have kept the men at work for a few days, bonfires were lighted about the country—not bonfires to communicate insurrection, but to evince joy that a few starving men were about to earn bread to support their families. Nevertheless, we are told that Irishmen will not work at home.”

Callen.—“In this town, containing between four and five thousand inhabitants, at least 1000 are without regular employment, six or seven hundred entirely destitute, and there are upwards of 200 mendicants in the town—persons incapable of work.”—*Inglist's Ireland in 1834.*

Such was the picture everywhere presented to the eye of this intelligent traveller. Go where he might, he found hundreds anxious for employment, yet no employment could be had, unless they could travel to England, there to spend *weeks* in travelling round the country in quest of *days* of employment, the wages for which might enable them to pay their rent at home. “The Celt,” says the *Times*, “is the hewer of wood and the drawer of water to the Saxon. The great works of this country,” it continues, “depend on *cheap labour*.” Such being the case, the lower the price at which the Celt could be made to work, the better for the Saxon; and no better mode could be found of cheapening labour than the sacrifice of Irish manufactures, brought about by the adoption of British free trade, the inevitable effect of which must be that of placing the whole population at home in the power of the few owners of land, and abroad in that of the projectors of the great works of England, requiring for their accomplishment a large supply of those “hewers of wood and drawers of water.”

It might be thought, however, that Ireland was deficient in the capital required for obtaining machinery of manufacture to enable her people to maintain competition with her powerful neighbour. In reply to this we have to say that before the Union she had that machinery; and from the date of that arrangement, so fraudulently brought about, by which was settled conclusively the destruction of Irish manufactures, the annual waste of labour was greater than the whole amount of capital then employed in the cotton and woollen manufactures of England. From that date the people of Ireland were thrown, from year to year, more in the hands of middlemen, who accumulated fortunes that they *would* not invest in the improvement of land, and *could* not, under the system which prostrated manufactures, invest in machinery of any kind calculated to render labour productive; and *all their accumulations were sent therefore to England for investment*. We have now before us an official statement shewing that the transfers of British securities from England to Ireland, that is to say, the investment of Irish capital in England, in the thirteen years following the final adoption of British free trade in 1821, amounted to as many millions of pounds sterling; and thus was Ireland forced to contribute cheap labour and cheap capital to building up “the great works of Britain.” Further, it was provided by law that whenever the poor people of a neighbourhood contributed to a saving fund the amount should not be applied in any manner calculated to furnish local employment, but should be transferred for investment in the British funds. The landlords fled to England, and their rent followed them. The middlemen sent their capital to England. The trader or the labourer that could accumulate a little capital saw it sent to England; and he was then compelled to follow it. Such is the history of the origin of the present abandonment of Ireland by its inhabitants.

The form in which rents, profits, and savings, as well as taxes, went to England, was that of raw products of the soil, to be consumed abroad,



*yielding nothing to be returned to the land, which was, of course, impoverished.*

The exports of animal produce in the year 1835, had attained to the following figures :

Cows and oxen,.....	98,150
Horses, .....	4,655
Sheep,.....	125,452
Swine,.....	376,191
Bacon and hams, lbs.,.....	379,111
Beef and pork, lbs.,.....	370,172
Butter, lbs., .....	827,009
Lard, lbs.,.....	70,267

In these cases some return was made to the land in the manure yielded by the cows and oxen, the hogs and the sheep ; but from the grain exported, averaging for several years preceding this date, about twenty-five millions bushels, of 60 pounds each, no return whatever was made. The poor people were, in fact, selling their soil to pay for cotton and woollen goods that they should have manufactured themselves, for coal which abounded among themselves, for iron, all the materials of which existed at home in great profusion, and for a small quantity of tea, sugar, and other foreign commodities, while the amount required to pay rent to absentees, and interest to mortgagees, was estimated at more than seven millions of pounds sterling, or almost thirty-five millions of dollars. Here was a drain that no nation could bear, however great its productive power ; and the whole of it was due to the colonial system. British free trade forbade the application of labour, talent, or capital to any thing but agriculture, and thus forbade advance in civilization. The inducements to remain at home steadily diminished. Those who could live without labour found that society had changed ; and they fled to England, France, or Italy. Those who desired to work, and felt that they were qualified for something beyond mere manual labour, fled to England or America ; and thus by degrees was the unfortunate country depleted of every thing that could render it a home in which to remain, while those who could not fly remained to be, as the *Times* so well describes it, mere "hewers of wood and drawers of water to the Saxon," happy when a full grown man could find employment at *sixpence a day*, and that, too, without food.

"Throughout the south and west of Ireland," said an English traveller in 1842, four years before the exhaustion of the soil had produced disease among the potatoes—

"The traveller is haunted by the face of the *popular starvation*. It is not the exception—it is the *condition* of the people. In this fairest and richest of countries, men are suffering and *starving by millions*. There are thousands of them, at this minute, stretched in the sunshine at their cabin doors with *no work*, scarcely any food, no hope seemingly. Strong countrymen are lying in bed, '*for the hunger*'—because a man lying on his back does not need so much food as a person a-foot. Many of them have torn up the unripe potatoes from their little gardens, and to exist now must look to winter, when they shall have to suffer starvation and cold too."

"Everywhere," said the *Quarterly Review*, "throughout all parts, even in the best towns, and in Dublin itself, you will meet men and boys—not dressed, not covered—but hung round with a collection of rags of unrivalled variety, squalidity, and filth—walking dunghills. \* \* \* No one ever saw an English scarecrow with such rags."

The existence of such a state of things was, said the advocate of British free trade, to be accounted for by the fact that the population was too nume-

rous for the land, and yet a third of the surface, including the richest lands in the kingdom, was lying unoccupied and waste.

"Of single counties," said an English writer, "Mayo, with a population of 389,000, and a rental of only 300,000*l.*, has an area of 1,364,000 acres, of which 800,000 are waste! No less than 470,000 acres, being very nearly equal to the whole extent of surface now under cultivation, are declared to be reclaimable. Galway, with a population of 423,000, and a valued rental of 483,000*l.*, has upward of 700,000 acres of waste, 410,000 of which are reclaimable! Kerry, with a population of 293,000, has an area of 1,186,000 acres—727,000 being waste, and 400,000 of them reclaimable! Even the union of Glenties, Lord Monteaule's *ne plus ultra* of redundant population, has an area of 245,000 acres, of which 200,000 are waste, and for the most part reclaimable, to its population of 43,000. While the barony of Ennis, that abomination of desolation, has 230,000 acres of land to its 5,000 paupers—a proportion which, as Mr. Carter, one of the principal proprietors, remarks in his circular advertisement for tenants, 'is at the rate of only one family to 230 acres; so that if but one head of a family were employed to every 230 acres, there need not be a single pauper in the entire district; a proof,' he adds, 'THAT NOTHING BUT EMPLOYMENT IS WANTING TO SET THIS COUNTRY TO RIGHTS!' In which opinion we fully coincide."

That such was the true cause of Ireland's difficulties none could doubt. British free trade had drained the country of capital, and the labour even of men found no demand, while women and children starved, that the women and children of England might spin cotton and weave cloth that Ireland was too poor to purchase. Bad, however, as was all this, a worse state of things was at hand. Poverty and wretchedness compelled the wretched people to fly in thousands and tens of thousands, across the Channel, thus following the capital and the soil that had been transferred to Birmingham and Manchester; and the streets and cellars of those towns, and of those of London, Liverpool, and Glasgow, were filled with men, women, and children in a state almost of starvation; while throughout the country, men were offering to perform the farm labor for food alone, and a cry had arisen among the people of England that the labourers were likely to be swamped by these starving Irishmen: to provide against which it was needed that the landlords of Ireland should be compelled to support their own poor, and forthwith an Act of Parliament was passed for that purpose. As a necessary consequence of this there was an increased desire to rid the country of the men, women, and children whose labour could not be sold, and who could therefore pay no rent. The "Crow-bar Brigade" was therefore called into more active service, as will be seen by the following account of their labours in a single one of the "Unions" established under the new poor-law system, which in many cases took the whole rent of the land for the maintenance of those who had been reduced to pauperism by the determination of the people of Manchester and Birmingham to continue the colonial system under which Ireland had been ruined.

"In Galway Union, recent accounts declared the number of poor evicted, and their homes levelled within the last two years, to equal the numbers in Kilrush—4,000 families and 20,000 human beings are said to have been here also thrown upon the road, houseless and homeless. I can readily believe the statement, for to me some parts of the country appeared like an enormous graveyard—the numerous gables of the unroofed dwellings seemed to be gigantic tombstones. They were, indeed, records of decay and death far more melancholy than the grave can show. Looking on them, the doubt rose in my mind, am I in a civilized country? Have we really a free constitution? Can such scenes be paralleled in Siberia or Caffraria?"

Up to this time there had been repeated cases of partial famine, but now the nation was startled by the news of the almost total failure of the crop of

potatoes, the single description of food upon which the people of Ireland had been reduced to depend. Constant cropping of the soil, returning to it none of the manure because of the necessity for exporting almost the whole of its products, has produced disease in the vegetable world, precisely as the want of proper nourishment produces it in the animal world, and now a cry of famine rang throughout the land. The poor-houses were everywhere filled, while the roads, and the streets, and the graveyards were occupied by the starving and the naked, the dying and the dead; and the presses of England were filled with denunciations of English and Irish landholders, who desired to make food dear, while men, women, and children were perishing by hundreds of thousands for want of food. Until now, Ireland had been protected in the market of England, as some small compensation for the sacrifice she had made of her manufacturing interests; but now, small as has been the boon, it was to be withdrawn. The famine came most opportunely for Manchester and Birmingham. They had exhausted all the foreign countries with which they had been permitted to maintain what they denominated free trade—India, Portugal, Turkey, the West Indies and Ireland herself—and it had become necessary to make an effort to obtain a control over the trade of the only prosperous countries of the world, those which had established protection of the people against the British monopoly, to wit—this country, France, Belgium, Germany, and Russia—and the mode of accomplishing this was that of offering them *the same freedom of trade in food by which Ireland had been ruined*. The farmers were everywhere invited to exhaust their soil by sending its products to England to be consumed; and the corn laws were repealed for the purpose of enabling them to impoverish themselves by entering into competition with the starving Irishman, who was thus at once deprived of the market of England, as by the Act of Union he had been deprived of his own. The cup of wretchedness was before well nigh full, but it was now filled. The price of food fell, and the labourer was ruined, for the whole product of his land would scarcely pay his rent. The landlord was ruined, for he could collect no rents, and he was at the same time liable for the payment of enormous taxes for the maintenance of his poor neighbours. His land was encumbered with mortgages and settlements, created when food was high, and he could pay no interest; and now the middlemen of England stepped in to claim their “pound of flesh,” and a law was passed, by aid of which property could be summarily disposed of at public sale, and the proceeds distributed among those who had legal claims upon it. The last blow was thus given to Ireland, and from that day to this, famine and pestilence, levellings and evictions, have been the order of the day. Their effect has everywhere been to drive the poor people from the land, and its consequences are seen in the fact that the population numbered, in 1850, *one million six hundred and fifty-nine thousand less than it did in 1840*; while the starving population of the towns had largely increased. The county of Cork had diminished 222,000, while Dublin had grown in numbers 22,000. Galway had lost 125,000, while the city had gained 7,422. Connaught had lost 414,000, while Limerick and Belfast had gained 30,000. Announcing these startling facts, the *London Times*, the great organ of British free-traders, stated that “*for a whole generation man had been a drug in Ireland, and population a nuisance*.” The “inexhaustible Irish supply had,” as it continued, “kept down the price of English labour,” but this cheapness of labour had “contributed vastly to the improvement and power” of England, and largely to “*the enjoyment of those who had money to spend*.” Now, however, a change appeared to be at hand, and it was to be feared that the



prosperity of England, *based as it had been on cheap Irish labour*, might be interfered with, as famine and pestilence, evictions and emigration, was thinning out the Celts who had so long, as it said, been "hewers of wood and drawers of water for the Saxon." The *Daily News*, another of the advocate of the system which has exhausted and ruined Ireland, and is now transferring its land to the men who have enriched themselves by acting as middlemen between the producers and consumers of the world, rejoiced in the great number of those who have fled from their native soil to escape the horrors of starvation and pestilence. This it regarded as the joyful side of the case. We give its words :

"What will follow? This great good, among others—that *the stagnant weight of unemployed population* in these insulated realms is never likely again to accumulate to the dangerous amount which there was sometimes cause to apprehend that, from unforeseen revulsions in industry or foreign trade, it might have done. A natural vent is now so thoroughly opened, and so certain to grow wider and clearer every day, that the overflow will pass off whenever a moderate degree of pressure recurs. Population, skill, and capital, also, will no longer wait in consternation till they are half spent with watching and fear. The way is ready. They will silently shift their quarters when the competition or depression here becomes uncomfortable. Every family has already friends or acquaintances who have gone before them over sea. Socially, our insulation as a people is proved, by the census of 1851, to be at an end."

The *Times*, too, rejoices in the prospect that the resources of Ireland will now probably be developed, as the Saxon takes the place of the Celt, who has so long hewn the wood and drawn the water for his Saxon masters. "Prosperity and happiness may," as it thinks, "some day reign over that beautiful island. Its fertile soil, its rivers and lakes, its water-power, its minerals, and other materials for the wants and luxuries of man, may one day be developed; but *all appearances are against the belief that this will ever happen in the days of the Celt*. That tribe will soon fulfil the great law of Providence which seems to enjoin and reward the union of races. *It will mix with the Anglo-American, and be known no more as a jealous and separate people*. Its present place will be occupied by the more mixed, more docile, and more serviceable race, which has long borne the yoke of sturdy industry in this island, which can submit to a master and obey the law. This is no longer a dream, for it is a fact now in progress, and every day more apparent."

Commenting upon the view thus presented, one of our American contemporaries most truly says, "There is a cold-blooded atrocity in the spirit of these remarks for which examples will be sought in vain, except among the doctors of the free-trade school. Naturalists have learned to look with philosophical indifference upon the agonies of a rabbit or a mouse expiring in an exhausted receiver, but it requires long teaching from the economists before men's hearts can be so steeled, that after pumping out all the sustenance of vitality from one of the fairest islands under the sun, they can discourse calmly upon its depopulation as proof of the success of the experiment, can talk with bitter irony of 'that *strange* region of the earth where such a people, affectionate and hopeful, genial and witty, industrious and independent, was produced and *could not stay*,' and can gloat in the anticipation that prosperity and happiness may some day reign over that beautiful island, and its boundless resources for the wants and luxuries of man be developed, not for the Celt but 'for a more mixed, more docile, and more serviceable race, which can submit to a master and obey the law.'"

The *Times* rejoices that the place of the Celt is in future to be occupied by cattle, as sheep already occupy the place of the Highlander expelled from the land in which, before Britain undertook to underwork the world and

thus secure a monopoly for the men of Manchester and Birmingham, his fathers were as secure in their rights as was the landowner himself.\* Irish journals take a different view of the prospect. They deprecate the idea of the total expulsion of the native race, as may be seen in the following extract from *The Western Star*. Speaking of the exodus of the people from the province of Connaught, it says:

"There is no doubt that in a few years more, if some stop is not put to the present outpouring of the people to America, and latterly to Australia, there will not be a million of the present race of inhabitants to be found within the compass of the four provinces. From the west," it is added, "they are flying in hundreds."

"No thoughts of the land of their birth," it continues, "seems to enter their minds, although the Irish people have been proverbial for their attachment to their country. The prospect of an abundant harvest has not the slightest effect in giving pause to their outward movement. The predominant, and, in fact, the only feeling that seems to pervade them, is an indescribable anxiety to get out of the country at all hazards. If war, famine, and pestilence were known to be close at hand, there could not be greater avidity shown to fly from their houses than is every day exhibited by the hundreds who crowd our high roads and railways in their journey to the shipping ports."

What is the prospect of a change may be seen by the following extract from one of the Dublin papers, received by the last steamer, in which are the measures now in course of being carried out, with the view to prepare the land of the Celt for the occupation of the Saxon and his cattle.

"The Galway papers are full of the most deplorable accounts of wholesale evictions, or rather exterminations, in that miserable country. The tenantry are turned out of the cottages by scores at a time. As many as 203 men, women, and children have been driven upon the roads and ditches by way of one day's work, and have now no resource but to beg their bread in desolate places, or to bury their griefs, in many instances for ever, within the walls of the Union workhouse. Land agents direct the operation. The work is done by a large force of police and soldiery. Under the protection of the latter, 'the Crowbar Brigade' advance to the devoted township, takes possession of the houses, such as they are, and, with a few turns of the crowbar and a few pulls at a rope, brings down the roof, and leaves nothing but a tottering

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\* As our readers may desire to understand the process of eviction in Scotland, we give the following extracts from recent English journals describing it, *as now being carried on*, and as likely to be continued.

"A Colonel Gordon, the owner of estates in South Uist and Barra, in the highlands of Scotland, has sent off over 1100 destitute tenants and cotters under the most cruel and delusive temptations; assuring them that they would be taken care of immediately on their arrival at Quebec by the emigrant agent, receive a free passage to Upper Canada, where they would be provided with work by the government agents, and receive grants of land on certain imaginary conditions. Seventy-one of the last cargo of four hundred and fifty have signed a statement that some of them fled to the mountains when an attempt was made to force them to emigrate. 'Whereupon,' they add, 'Mr. Fleming gave orders to a policeman, who was accompanied by the ground officer of the estate in Barra, and some constables, to pursue the people who had runaway among the mountains, which they did, and succeeded in capturing about twenty from the mountains and from other islands in the neighbourhood; but only came with the officers on an attempt being made to handcuff them, and that some who ran away were not brought back; in consequence of which four families, at least, have been divided, some having come in the ships to Quebec, while other members of the same families are left in the highlands.'"

"On board the *Conrad* and the *Birman* were 518 persons from Mull and Tyree, sent out by his Grace the Duke of Argyll, who provided them with a free passage to Montreal, where on arrival they presented the same appearance of destitution as those from South Uist, sent out by Col. Gordon—that is, 'entirely destitute of money and provisions.' They were all sent free to Hamilton."

It may be proper to add, that starvation made considerable inroads upon the numbers of these poor people during the last winter.

chimney, if even that. The sun that rose on a village sets on a desert; the police return to their barracks, and the people are nowhere to be found, or are vainly watching from some friendly covert for the chance of crouching once more under their ruined homes.

"What to the Irish heart is more painful than even the large amount and stern method of the destruction, is that the authors this time are Saxon strangers. It is a wealthy London company that is invading the quiet retreats of Connemara, and robbing a primitive peasantry of its last hold on the earth. The Law Life Assurance Company having advanced, we believe, £240,000 on the Martin estates, has now become the purchaser under the Encumbered Estates Acts, and is adopting these summary but usual measures to secure the forfeited pledge. That gentlemen, many of whom have never set foot in Ireland, and who are wealthy enough to lend a quarter of a million of money, should exact the last penny from a wretched peasantry who had no hand or voice in the transaction which gave them new masters, seems utterly intolerable to the native Irish reason."

We have said, that to the separation of the consumer from the producer produced by the adoption of British free trade, having for its object the establishment of a monopoly of the machinery of manufacture for the world, is due the exhaustion of Ireland, the ruin of its landholders, the starvation of its people, and the degradation in the eyes of the world of the country which has furnished to the continent its best soldiers, and to the empire not only its most industrious and intelligent labourers, but also its Burke, its Grattan, its Sheridan, and its Wellington; and in this view we are fully borne out by Mr. THOMAS FRANCIS MEAGHER, a few extracts from whose speeches on various occasions will now be given. In a speech delivered at a meeting of the Irish Confederation, on April 7, 1847, he used these impressive words:

"Tell me, has England not eaten enough of your food, and has she not broken down enough of your manufactories, and has she not buried enough of your people? Recount for a moment a few of your losses. The cotton manufacture of Dublin, which employed 14,000 operatives, has been destroyed; the 3400 silk-looms of the Liberty have been destroyed; the stuff and serge manufacture, which employed 1491 operatives, have been destroyed; the calico-looms of Balbriggan have been destroyed; the flannel manufacture of Rathdrum has been destroyed; the blanket manufacture of Kilkenny has been destroyed; the camlet trade of Bandon, which produced £100,000 a year, has been destroyed; the worsted and stuff manufactures of Waterford have been destroyed; the rateen and frieze manufactures of Carrick-on-Suir have been destroyed. One business alone survives! One business alone thrives and flourishes, and dreads no bankruptcy! That fortunate business—which the Union Act has not struck down, but which the Union Act has stood by—which the absentee drain has not slackened, but has stimulated—which the drainage acts and navigation laws of the Imperial Senate have not deadened but invigorated—that favoured, and privileged, and patronized business is the Irish coffin-maker's."

Such is everywhere the result of the British colonial system, which England denominates free trade. The population of her West India islands is not now more than one-half of the number of Africans that have been imported into them. In India, in the twenty years from 1818 to 1838, *there were no less than nine years of famine*. That of 1837-8 was terrific, yet the unfortunate people were surrounded by millions upon millions of acres of the richest lands in the world, which they could not cultivate for want of machinery, although the raw materials of that machinery abounded. Whole families of respectability poisoned themselves, rather than beg a little rice for their support. The rivers were choked with dead bodies in the provinces in which this abundance of waste land existed; and the air putrefied with the stench of dead and dying men, women, and children; while jackals and vultures were seen preying on the still animated bodies of our fellow-creatures.

The policy of England in India has been the same that has been pursued



in Ireland. The whole produce of the land not required for the consumption of the agriculturalists themselves, has had to go to distant markets; the consequence of which has been exhaustion of the land wherever cultivated, and an inability to obtain the machinery by aid of which to bring the richer soils into cultivation. "Hitherto," says a recent English traveller, speaking of the country on the Nerbudda—

"Little beyond the rude produce of the soil has been able to find its way into distant markets, from the valley of the Nerbudda; yet this valley abounds in iron mines; and its soil, *where unexhausted by cropping*, is of the richest quality. It is not then too much to hope that in time the iron of the mines will be worked into machinery for manufactures; and that multitudes, aided by this machinery, and subsisted on the rude agricultural produce which now flows out, will invest their labour in manufactured commodities adapted to foreign markets, and better able, from their superior value, compared with their bulk, to pay the cost of transport by land. Then, and not till then, can we expect to see these territories pay a considerable net surplus revenue to government, and abound in a middle class of merchants, manufacturers, and agricultural capitalists."—*Col. Sleeman's Rambles in India*.

This is certainly a pleasant anticipation, but the policy of Great Britain looks to compelling the whole people of the world to become agriculturists, that she may be cheaply supplied with the raw products of the earth, while they exhaust the land, as has been done in every country of the world with which she has had what she calls free trade, and which we regard as monopoly of the most oppressive kind.

Again, in a speech at Belfast, on November 15, 1847, Mr. Meagher said:

"How do you explain this fact, that previous to the enactment of the Union, in thousands of factories now closed up, there were so many evidences of an industrious disposition? I cannot run through them all, but take one or two. Dublin, with its ninety-one master-manufacturers in the woollen trade, employing 4938 hands; Cork, with its forty-one employers in the same trade, giving employment to 2500 hands; Bandon, your old southern ally, with its camlet trade, producing upward of £100,000 a year; were these no proofs of an active spirit, seeking in the rugged paths of labour for that gold out of which a nation weaves its purple robe, and moulds its sceptre? I cite these towns: I could cite a hundred other towns—Limerick, Roscrea, Carrick-on-Suir, Kilkenny—I cite them against the Union."

In the same speech, in recounting the wrongs Ireland had endured at the hands of the British Government, he said:

"Thus it is that the grant in aid of your linen manufacture has been withdrawn; thus it is that the grant in aid of the deep sea fisheries has been withdrawn; thus it is that *the protective duties have been repealed*, in spite of the remonstrance of the principal manufacturers of Ireland."

And on the same occasion at Belfast, Mr. Meagher quoted the following facts from a previous writer, in illustration of his own views in reference to the effect which free trade with England had exercised upon the condition of his native country:

"The exports and imports, as far as they are a test of decay of profitable occupation—so far as the exports and imports are supplied from the parliamentary returns—exhibit extraordinary evidence of the condition of the labouring classes. The importation of flax-seed (an evidence of the extent of a most important source of employment) was—in 1790, 339,745 barrels; 1800, 327,721 barrels; 1836, 469,458 barrels. The importation of silk, raw and thrown, was—in 1790, 92,091 lbs.; 1800, 79,060 lbs.; 1830, 3190 lbs. Of unwrought iron—in 1790, 2271 tons; in 1800, 10,241 tons; in 1830, 871 tons. Formerly we spun all our own woollen and worsted yarn. We imported in 1790, only 2294 lbs.; in 1800, 1880 lbs.; in 1826, 662,750 lbs.—an enormous increase. There were, I understand, upwards of thirty persons engaged in the woollen trade in Dublin, who have become bankrupts since 1821.

There has been doubtless an increase in the exports of cottons. The exports were—in 1800, 9147 yards; 1826, 7,793,873. The exports of cotton from Great Britain were...in 1829, 402,517,196 yards, value £12,516,247, which will give the value of our cotton exports at something less than a quarter of a million—poor substitute for our linens, which the province of Ulster alone exceeded in value two millions two hundred thousand pounds. In fact, every other return affords unequivocal proof that the main sources of occupation are decisively cut off from the main body of the population of this country. The export of live cattle and of corn has greatly increased; but these are raw material. There is little more labour in the production of an ox than the occupation of him who herds and houses him; his value is the rent of the land, the price of the grass that feeds him; while an equal value of cotton, or linen, or pottery, will require for its production the labour of many people for money. Thus the exports of the country now are somewhat under the value of the exports thirty years since, but they employ nothing like the number of the people for their production; employment is immensely reduced—population increased three-eighths. Thus, in this transition from the state of a manufacturing population to an agricultural, a mass of misery, poverty, and discontent is created.”

Such are the circumstances that have led to the ruin and depopulation of Ireland. England desired to convert Ireland, as she now desires to convert this country, from a manufacturing to an exclusively agricultural population. She desired, as far as possible, to keep the loom and the spade at a distance from the plough and the harrow, and the result has been there, as it must be here, a “mass of poverty, misery, and discontent.” For all this, however, the *Times* finds consolation in the fact that—

“When the Celt has crossed the Atlantic, he begins for the first time in his life to consume the manufactures of this country, and indirectly to contribute to its customs. We may possibly live to see the day when the chief product of Ireland will be cattle, and English and Scotch the majority of her population. The nine or ten millions of Irish, who by that time will have settled in the United States, cannot be less friendly to England, and will certainly be much better customers to her than they now are.”

Extraordinary as is this fact, it is nevertheless true. From the moment the Irishman crosses the Atlantic, he commences his contribution to the maintenance of the system by which Ireland has been ruined. From that moment he begins to lend his aid to the system which looks to the substitution of cattle for the late occupant of the land—the Celt, so long “a hewer of wood and drawer of water” for the Saxon. From the moment an Irishman lands in this country, he is found lending his aid to the election of law-makers, who profess the same principles of legislation as those which have brought misery upon his native land, and driven himself from the hearthstone of his fathers. The free-traders of England determined that Ireland should raise potatoes for its people, and beef and grain to be carried across the channel and eaten in Britain—that Irishmen should be strictly confined to agricultural production, and buy all their manufactures at the workshops of England. Our free-traders seek to enforce the same policy upon us, and Irishmen who have fled to avoid the consequences of being thus tributary to England, aid by their votes in again reducing themselves to the same subjection. The free-traders of England have been for half a century doing all in their power to reduce the wages of labour to the lowest point, to the end that they might manufacture for the whole world, and undersell all mankind in their various domestic markets. The free-traders of the United States insist that we should oppose no resistance to the monopoly of Britain, and they expect Irishmen to help them by their votes. The advocates of the union of the loom and the anvil with the plough and the harrow, on the contrary, look upon high wages to labour as the sure basis of national prosperity. They know that the Irishman who works for 18 cents a day in

his own country, makes no profit for his employer, no savings for himself. The same Irishman, when he goes into the harvest fields of England, earns perhaps 37½ cents a day. His employer derives a profit from his labour, and he is enabled to save enough, with the aid of the friends who have preceded him to America, to make up a little kit and emigrate to our shores. Here he obtains from 75 to 100 cents a day, and soon accumulates a little capital, which enables him to employ his countrymen as they arrive, while those who pay him these wages make profits from his labour twice as great as those who paid him but half as much in England; and in a still higher proportion to those who paid him but one-fourth as much in Ireland.

The personal observation of every emigrant verifies these facts. They cannot help seeing that the road to equalization and Democracy is through the Whig policy of elevating the reward of domestic labour; and yet the party which believes in low wages, and in buying from England because her people are forced to work at low wages—which thus does all in its power to keep down wages here and there—expects to get Irish votes in the perverted name of Democracy; and therefore, unhappily, it has been proved among ourselves, that the most efficient supporters of the British system have been found among those whom that system has deprived of the power of supporting themselves, their parents, their wives and their children, at home.

Such being the case, we need not wonder when we find the *Times* rejoicing at the gradual disappearance of the native population; nor that it should find that

“The abstraction of the Celtic race at the rate of a quarter of a million a year, a surer remedy for the inveterate Irish disease, than any human wit could have imagined.”

The “inveterate Irish disease” here spoken of is a total absence of demand for labour, resulting from the determination of Manchester and Birmingham to maintain the monopoly of the power to manufacture for the world. The sure remedy for this is found in famines, pestilences, and expatriation, the necessary results of British free trade.

In a recent and eloquent speech from Mr. Meagher, that gentleman spoke of his country as one

“Whose name sounded like a funeral-hymn. It told of a land, the joy of whose heart had ceased—whose inheritance was turned to strangers, and whose house to aliens—whose young men were gone into captivity—whose cities were solitary that were full of people, and whose gates were desolate. Of that land they had heard him speak when the light of a new destiny—beautiful as the light which shone over the face of the prophet—revealed her in a defiant attitude to the world. He did not then pause for words. He should not pause now, were he to behold the same transfiguration. It was painful for them to be there, and have to own that they belonged to a country which, along the great highway of nations, moved on unchartered and unrecognised. It was a galling thought. It flooded the heart with bitterness, and flushed the honest cheek with shame. The glory of a free country descended upon each one of her children—the poorest even—and they walked the world respected. They bore credentials which entitled them to the hospitality, and it might be, to the homage of the stranger. It was painful for them, as he said, to be there, and feel they had no such country.”

He regarded her as one whose present condition afforded little reason for hope. Nevertheless “he would keep alive the feelings, keep alive the hopes which, down even to our own day, have borne her with unconquered endurance through the agony of ages.” Hope in the future emancipation of his country had alone, as he told his hearers, consoled him in all his vicissitudes of fortune, and he concluded with the fervent prayer—



"That it might be vouchsafed to them to see that hope fulfilled! That it might be vouchsafed to them to dwell upon the earth until the promised day had dawned upon the land of their fathers, and their eyes had beheld her salvation! That it might be vouchsafed to them to return to that land—to behold her in her gladness and her glory, as they had looked upon her in her sorrow and captivity—to lead their children to her altar, and dedicate them to her service—for their old age to claim an honourable seat within her gates, as they had been faithful to her youth—and in her holy soil, a resting place forever."

To this we cry, Amen! We desire to see Ireland restored, and made a place fitting for the residence of its sons. We desire to see Irishmen occupy that high place in the estimation of the world to which they have, on so many occasions, proved themselves so well entitled. We desire to see the day when it shall no longer be needed that the daughters of Ireland shall be compelled to separate themselves from parents, and brothers, and sisters, to seek service in foreign lands, and therefore do we desire to see Irishmen aiding, not in the maintenance of the British monopoly, but in resistance to that monopoly, by recognising the existence of the fact, that in protecting the farmers and planters of this country in their efforts to bring the spindle and the loom to the side of the plough and the harrow, they are protecting themselves. "It is time they should see," says one of our contemporaries, "that so long as they 'contribute to the customs' of England, as the *Times* very truly says they do—so long as by buying English manufactures, they pay English wages, and in paying English wages, pay the taxes that are extracted by the government from those wages—it is *they* who pay the police—there are twelve thousand of them in Ireland, kept up at a cost of two and a half millions a year—and the soldiery and the crow-bar brigade to pull down the roof-trees of their brethren! Can they not see that when the Irishmen in America refuse to be customers to England, the temptation for driving them from their native soil will be greatly diminished, and that if England is forced to raise breadstuffs at home, or in Ireland, her fields will not be depopulated to make cattle pastures and sheep walks?"

"The Irish voters can control the election of more than enough members of Congress, in the Middle and Western States, to establish the protective policy permanently in this country, and thereby to build up American manufactures, so that all the raw materials which our own soil and mines supply, shall be wrought up at home by the labour of our citizens, native and adopted—to secure an ample domestic market among those labourers for all their agricultural products, instead of being forced to send them abroad for a market, while swelling the number of producers; because every new citizen who is deprived of mechanical employment is compelled to become a farmer—to dry up the greatest tributary to the commerce and power of England, by depriving her of what are now her largest markets and her most profitable customers in the United States. To do this would be to secure Ireland for the future and avenge her for the past, as far as can be, until Ireland shall again have a Parliament, when she would re-establish an Irish protective tariff at the first session."

The Irishmen of Albany saw the evil and the remedy, when, at their last St. Patrick's festival, they received with rapturous applause the following toast offered by Mr. John Costigan, of that city:

"Protection to American Industry—The most legitimate and effectual punishment we can inflict on John Bull for his tyranny and oppression to Ireland. Let us have a tariff high enough to exclude the importation of *all* British manufactures."

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

## PEACH TREES.

BY HON. R. B. HUBBARD.

FOR a few years past we have been encouraged in the belief that we could raise peaches in Massachusetts—that we should not be always dependent upon New-Jersey and Delaware for this most delicious of fruits. But the result of the last winter has terribly shaken our faith. I have never known such destruction among fruit-trees of any kind. I have been in each of the New-England States, and find that the remark is true of all.

A large portion of the trees, probably one third, were killed outright. Of the remaining portion, a moiety came out unscathed, while much the larger part show signs of sickly life, here a bud and there a limb; of fruit there will of course be but very little. Many gardeners are discouraged, and say 'tis of no use trying to raise peaches in New-England. Many years will elapse before we shall be permitted to witness such a crop of peaches as last autumn.

But I took my pen to submit some queries which have arisen in my own mind touching the culture of the peach.

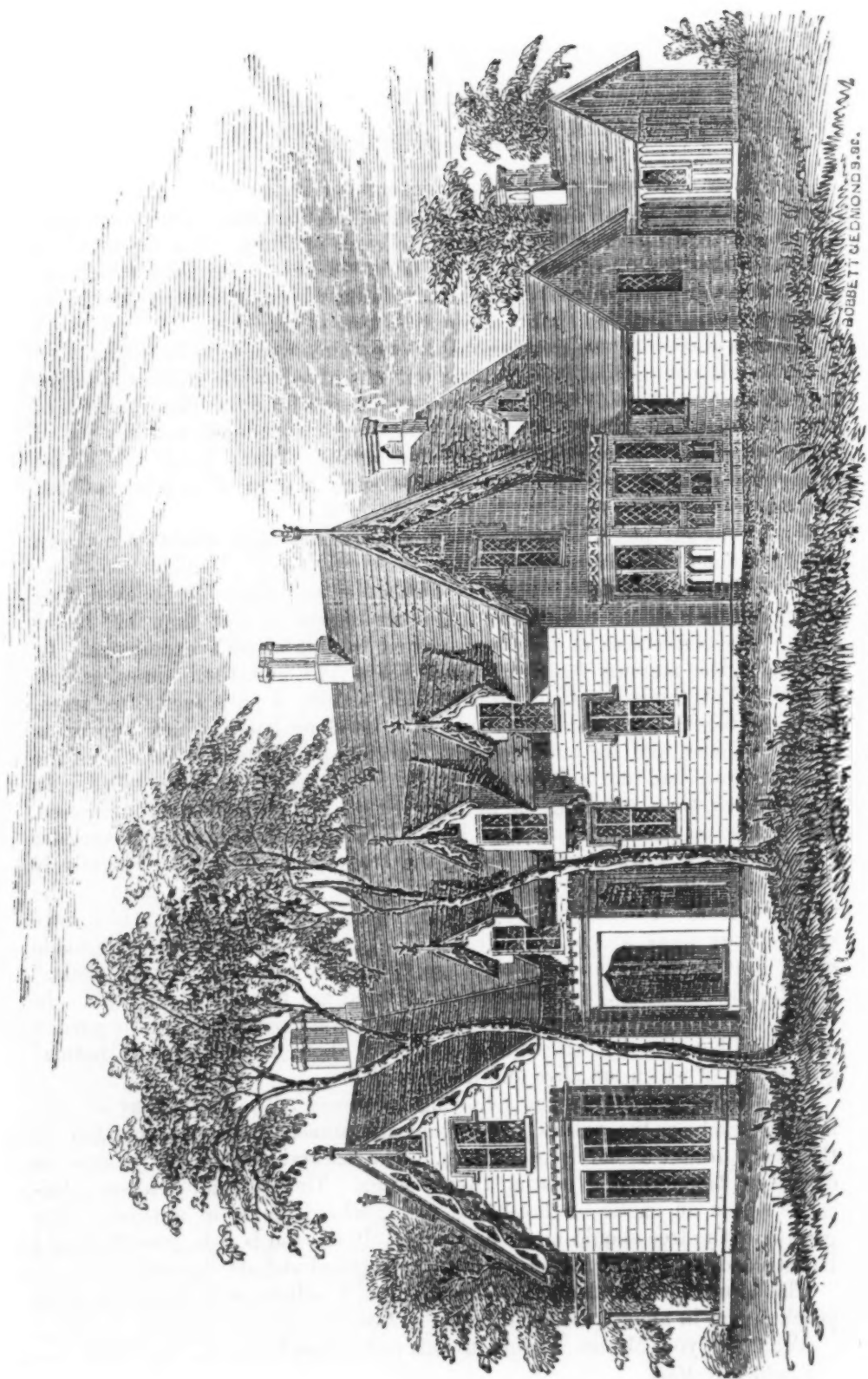
It has been asserted by writers of distinction, and generally believed, that the peach-bud would not endure a greater degree of cold than  $12^{\circ}$  below zero. The correctness of this is disproved by last winter's experience. In this place, the mercury frequently sank below  $12^{\circ}$ , and, three times, as low as  $20^{\circ}$ . Yet, there are some peaches this season. I have seen three trees, standing together on the sunny side of a dwelling-house, which appear as healthy as ever, and are burdened with fruit; while nineteen twentieths of the trees in town had not a blossom, and at least three fifths were killed. In some places, trees standing on the north side of buildings were uninjured, while those on the south side were killed. In the hilly towns of Worcester county, also in York county, Maine, the trees have suffered comparatively little; while in the valleys of the Connecticut and Merrimac, most of the trees are dead. I notice, also, that in the same locality, the trees which have survived are those which have grown slowly, while those which have made rapid growth, have verified the adage, "Soonest matured, soonest decay." Another fact I notice: the trees which survived are mostly natural fruit. In my garden were twelve trees of budded fruit: every one died. In the garden of a neighbor near by, with similar soil, were about twenty trees of natural growth, all of which are alive and doing well.

From these facts I draw the following inferences: The surest way of raising the peach, is the natural way—from the stone. Like produces like in the peach *almost* as surely as in corn. The natural tree is hardy, even in cold New England, after bearing twenty years. The artificial is always delicate—seems an exotic—a hot-house plant, whose life is as a vapor. The growth of the tree should never be forced. If the soil is rich, growth should be retarded, by placing underneath the tree gravel and sterile earth.

The observance of these two simple rules, I believe, will insure us good peaches, and in abundance, even in Massachusetts.

What say you, Messrs. Editors, to this *radicalism*?

Sunderland, Mass.



WALDWIC COTTAGE.



## COTTAGE DESIGNS.—No. IX.

WALDWIC Cottage, of which the foregoing engraving gives a very good representation, is beautifully situated in one of the loveliest and most fertile spots in New-Jersey. It is distant from the city of New-York about thirty miles, located near Paramus, on the bank of the Hohokus river, surrounded by scenery of surpassing beauty, formed by a combination of rivers, forests, and cultivated plains. On the east, it is flanked by a grove of noble oaks; on the north, by the primitive forest; on the west, by the river, on which are erected within view two or three mills and a cotton factory; and on the south, are the plains of Paramus, and the valley of the Saddle river. It was originally a substantial, first-class country house, very little of which now remains, having been recently remodelled and rebuilt by Elijah Rosencrantz, Esq., after the designs and drawings of W. Kanlett, Esq., who has contributed very much to the great improvement in rural architecture which has within the past five years sprung up in this portion of the country.

"Waldwic" forms probably as good an example of a complete and well-constructed farm cottage villa as the surrounding country can afford. The design of the house is after the old English style, and it is finished inside and out in the most substantial manner. The walls are constructed of hammer-dressed brown stone, from extensive quarries in the vicinity; the timber is of oak and chestnut, and the roof of cedar, all together combining the useful and durable with the convenient and ornamental.

Waldwic Cottage is, or rather *was*, one of the few remaining houses in the country which have been consecrated by historical events. Before the Revolution it was the residence of a wealthy English family, and during the war was at different times the temporary head-quarters of Washington, and the residence of the beautiful *Theodosia Prevost*, who afterwards became the wife of Aaron Burr. At this time it was called the Little Hermitage, and several of her letters to her future husband were dated there. It was while residing at what is now termed "Waldwic Cottage" that she first became acquainted with Burr, who was then stationed at Ramapo, not many miles distant.

## PREPARATION OF SOILS FOR POTTING.

WE find the following remarks in the *Gardener's Journal*, and commend them to the attention of our readers:

I will take the opportunity to make a few remarks on soils, which is, perhaps, one of the most important considerations which can occupy our attention; for without a due supply of soils of all descriptions, properly aerated and prepared for immediate use, success in growing plants of all kinds, subjected to artificial treatment, can only be considered adventitious. It is generally allowed by all good cultivators, that soils for pot purposes should undergo a long process of preparation; and as the present is a good season for getting them together, I am inclined to believe that a few remarks deduced from practice may not be out of place. I propose to treat of them under their several heads; and first,

*Loam*.—The goodness of this important soil is mainly dependent on the

substrata from which it is taken. The best for all plant purposes I have ever met with, was three inches taken with the turf from a meadow situated at the junction of a deep substratum of gravel, with one of clay; the loam itself was nearly two feet deep, and the subsoil good enough for many garden purposes. This loam was carted home in dry weather, and stacked in a deep ridge, turf downward, about six feet high, and resting on a base of four feet. It was full of fibrous roots, very soft and unctuous to the touch, rather sandy, and possessed in a remarkable degree the indispensable quality of not running together or binding, when wetted. It is desirable to secure a loam possessed of these qualities as nearly as possible. A loam from the top of gravel is better than from the top of sand, or clay, or chalk. If it lies deep on chalk, it is next best: that from sand is often very poor, and, if the sand is fine, liable to run together; so that I would prefer a good loam from the top of clay to it, as we can always add coarse porous material. As a general rule, from two to three inches is quite thick enough to cut it.

*Peat.*—This is more difficult to obtain of that genuine quality that cultivators of hard-wooded plants delight in. Many, indeed, confound bog, or decayed marsh vegetation, and alluvial deposits, with peat; but they are as different in quality, as in the effects produced by their use in cultivation. Bog often runs very deep; peat suitable for plant purposes, never,—sometimes not more than two inches deep on a gravelly subsoil. The best, however, is that which is full of fibre from decayed heath roots and moss, from four to six inches deep, on a sandy pebbly stratum, resting on gravel. This should also be carted home in dry weather, and stacked the same as directed for loam.

*Leaf-mould.*—This soil, in its importance to plant growers, is second to none. It should never be used under three years old, and four is better. The first year the leaves should be thrown together in a large heap to ferment. The next year it is removed to the soil department, and kept aerated by frequent turnings; and the third year it may be used, but is better the next.

Rotted stable manure is another important soil, which must also be prepared by frequent turnings and aëration, for use the third and fourth years. Nightsoil must also be prepared by the foregoing category, and mixed with peat charcoal; the third year it may be handled for potting purposes—by the non-fastidious. Cow's dung, sheep's dung, and pigeon's dung, should be prepared by the same routine, and although not indispensable, are highly useful to be kept in stock, where a strong luxuriant growth is desired.

Another most important ingredient is charred earth. No plant growers should be without this most important ingredient in soils, as there are hardly any tree-growing plants but delight in a portion of it mixed with the compost. We use it with great success for calceolarias, pelargoniums, picotees, carnations, cinerarias, fuchsias, and a variety of soft-wooded plants. It is not difficult to procure, as there is always a great quantity of rubbishing wood, the prunings of trees and shrubs, every season. They should be collected in a suitable place, and once a year, if not oftener, a great bonfire made so as to lay a good foundation, and afterward heap on alternate layers of wood and soil, and it will smoulder away for weeks, and is fit for use as soon as cold.

Road dirt, or the scrapings of roads, formed of gritty sandstone, is another very important soil, and, if carefully collected, will be highly impregnated with the droppings of horses and other beasts of travel.

Charcoal, whether purchased or home-made, must be kept in stock, being useful for many purposes, but principally so for mixing with the drainage of flower-pots. Silver sand must not be forgotten, and, with plenty of moss and

crocks for drainage, will complete the list of requisites for good cultivation where an extensive cultivation is kept up.

The proper application of these different soils can only be learned by practice and experience. As a general rule, all soft-wooded, free-rooting plants should have strong ingredients to assist the growth. Heaths, and most hard-wooded green-house plants of a like nature, will flourish best in pure peat. Some, however, which both root and grow freely, will bear the addition of a trifle of loam and leaf-mould; a small portion of charcoal, mixed with both soil and drainage, is also very useful to these plants. Soil for seeds may be sifted, but for growing plants never do more than chop it finer or coarser, according to the size of the shift; for a large shift let the compost be used very rough. It is needless now to amplify on this subject, as I hope to be able to point out a few applications by and by.

#### HOW TO STIMULATE THE PRODUCTION OF COTTON.

"A Berlin paper says the increase of the manufacture of beet-root sugar in Prussia is enormous. Within the last two years it has almost doubled. The quantity of roots pressed since last autumn is said to exceed a million of tons; the quantity of raw sugar gained therefrom being 70,000 tons."

THROUGHOUT Europe there is an effort to supersede slave labor for the production of sugar, and thus to drive it to the production of cotton, and our planters aid in the work by joining in the cry of "free trade," the sole object of which is to give to the middlemen of Great Britain the power to live at the cost of the producers of the world. But for the intervention of English ships and English merchants, the people of Europe would now enjoy an intercourse with the tropical countries of the world that would render it unnecessary for them to employ themselves at home in the production of sugar; and but for the British monopoly of machinery, Brazil would now be making cloths for herself, and less of her labor would be required to be applied to the raising of sugar and cotton. Every movement of Great Britain is adverse to the planters, and yet they it is that are most determined to fasten upon the country the system of British free trade. Every reduction in the price of sugar tends to drive labor to the production of cotton.

We have now before us an estimate of the cost of a sugar estate in Brazil worked by water power, including buildings, mills, machinery, forty slaves valued at less than \$300 each, carts, oxen, and horses, calculated to produce one hundred tons of sugar per annum, and only eighteen miles from the capital, and the amount is, in pounds sterling, - - - £8,534  
The value of sugar produced is - - - - - 1,850  
and the outlay for labor, transportation, repairs, &c., is - - - 1,014  
leaving a profit to the owner of - - - - - 836  
or less than ten per cent. upon the capital, in a country "in which," as the writer says, "the discounter of bills gets 18 per cent. Many of the planters," he adds, "have their estates mortgaged for heavy debts bearing this enormous interest, so that it occurs in many cases that the net returns do not amount to so much as the interest he has to pay upon his debts." This statement is furnished to the London *Economist* by a decided advocate of British free trade, and may therefore safely be received as accurate, or certainly as not having been colored by any desire for the downfall of the British monopoly



under which the planters and farmers of the world are now being so heavily taxed.

To those who feel a desire to look a little into the future, it can scarcely fail to be interesting to reflect upon the effects that must inevitably result from the continuance of this monopoly, the tendency of which is that of forcing the people of Europe to raise sugar for themselves, and to deprive the people of the tropical countries of the power to obtain machinery to enable them to compete with their powerful rivals. The production of sugar in Germany has more than quintupled in five years, while that of France has almost doubled in the past two years, as is shown in the following statement derived from official documents now before us:

	Kilogrammes.
Production of the year ending 31st August, 1849,	38,639,000
“ “ “ 1850,	62,175,214
“ “ “ 1851,	76,151,128

We have here a growth from eighty-four millions to one hundred and seventy millions of pounds, or from 85,000 to 170,000 hhds., the direct effect of which is a large diminution in the value of both the land and the labor elsewhere given to the cultivation of sugar, producing a tendency to the substitution of cotton for sugar, and as a consequence a depreciation in the value of the land and the labor now devoted to the production of cotton. The tendency of British commercial centralization is that of forcing the whole people of the earth into agriculture, that Britain may be enabled to purchase their products *at low prices*; and yet whenever the farmers and planters of the world desire to know how they may have *high prices*, they study Manchester political economy!

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FOR THE PLOUGH, THE LOOM, AND THE ANVIL. ]

## NOTES OF A WESTERN TOURIST.

BY REV. ROBERT SEWELL, MADISON, N. J.

THE great West had always filled my mind with sentiments of romance and grandeur, and for many years I had the strongest desire to see its natural wonders with my own eyes. Its rolling prairies, with the long, waving grass, studded with the colors of Flora; its majestic oak-openings, and the new-born cities which were so constantly springing up in the wilderness, increased the desire I had of gratifying myself with a western tour. This opportunity was afforded me, through the kindness of a friend, who offered to supply the needful if I would accompany him; a proposal to which I cordially acceded.

Leaving the State of New-Jersey, June 29th, 1852, we went on board the boat Isaac Newton, for Albany, at 6 P.M., sailing up among the enchanting scenery of the Hudson, and enjoying the calmness of the evening upon deck, watching with pleasure every variety of nature and art as it passed by us. We had on board some five or six hundred emigrants, principally Germans, from the aged grandsire to the little infant. These were not the cast-off paupers of Europe, but individuals who were bringing out with them means to establish themselves, and secure a home for their families in the fertile plains of the West. They were the picture of strength and health, as they lay themselves down and soundly slept, many of them upon the bare floor, with any

part of their clothing that was at hand rolled up, and laid under their heads for a pillow.

There was one public character among us, who was pointed out as the great Barnum, of world-wide notoriety, and we scanned him pretty closely, to see if we could observe in his physiognomy the traits of that undying energy and invention which so strongly characterize him; and we thought his eyes had in them, if not the light of genius, yet the acumen of deep thought and perseverance. He is rather tall in stature, and slight in form.

#### ALBANY, LAKE ERIE, AND DETROIT.

We reached Albany at 4 A.M., and had an opportunity to look around the city before the train started for Buffalo. The contrast between this city and New-York in point of cleanliness is very apparent, and the New-York city fathers might take a very appropriate lesson if ever they visit this place, as an example of cleanliness and purity.

Throughout the journey to Buffalo, vegetation was suffering for want of rain; and we had the satisfaction of seeing the descending showers ere mid-day, and greatly hoped they extended to our farms and gardens in Jersey. We saw several pieces of barley, and some hop plantations, which were interesting to us as novelties, although we had seen abundance of them in the mother country. In the neighborhood of Rochester, the wheat fields, which were of great extent, looked healthy, and the crops good. Here we changed cars.

We reached Buffalo about 9 P.M., and went on board the fine steamer Ocean, which was to take us across Lake Erie. Here we were detained, and felt not a little anxious until our luggage arrived, when we retired to rest, and were up early the next morning enjoying the sail on this beautiful sheet of water. We passed several small, round, wooded islands, literally answering the description that Pope gives of the fancied home of the wild Indian:

"Some happy island in the watery waste,  
Or depths of woods in solitude embraced."

Others we passed were of longer dimensions, where clearances had been made, houses and barns erected, and the waving grain gave evidence of the successful labors of the husbandman.

We reached Detroit at 4 P.M. This is a noble growing city. The streets are the widest I have seen in any city, and each side is planted with trees, affording both ornament and shade. Curiosity led us to pass the house of General Cass, who was absent, looking after the national interest at Washington. His residence has nothing of an aristocratic appearance, and many a citizen lives in one of much greater display. Few, perhaps, would suppose that this was the domicile of one who had received the nomination for the highest civil office in the gift of this vast Republic. Detroit must become a large city. Its location at the end of the lake is the great outlet for emigration, and the point to which all sorts of merchandise tend.

#### CANADA.

The province of Canada lies opposite, just over the river. We were ferried over in a small steamer to Windsor, and walked about a mile up the country. Here, the banks of the river were much steeper than upon the other side. The land appeared flat, but rich, and the farmers, in the tillage of the soil, did not appear to keep up with the progress of the age. The lands here

were principally held by old settlers, French Canadians, who care not much for improvement themselves, and are unwilling to sell to others, who would, at a fair price, buy their occupations, and commence a system of progress.

This was formerly the case at Detroit, until the Legislature passed an act compelling the holders of land property to sell at a just and fair price, in cases in which refusal would prove a hindrance to the improvement of the city. Both ferry-boats are owned by Americans, one of many facts which tend to show how much greater is the spirit of business speculation on the Yankee side. Every thing brought over the line here pays a duty. We observed a woman with a basket of radishes, raised on the Canada side, and found upon inquiry that she paid between ten and twenty per cent. duty.

DETROIT TO CHICAGO—PRAIRIE LANDS, ETC.

*Friday, July 2d.*—We stepped into the cars for Chicago about 9 A.M., and took the central route, which, from experience, we found to be more interesting, and preferable to the southern. In these cars, as well as in the western hotels, the stoves were not removed, but generally retain their places all the year; indeed, we actually found a fire at one of the hotels where we lodged, and thought it very comfortable to sit by and smoke our evening cigars. We made about thirty stoppages during our ride, this day, through a region of country that presented almost every variety of aspect. Sometimes we beheld fine houses with old clearings; other spots but partially cleared. In many places the burnt underwood and logs were still smoking upon the soil, and numberless acres of girdled dead trees presented a curious feature, as they peered up with their leafless branches amidst cultivated plains and ripening grain beneath them.

Sometimes we emerged from the forest into a wide open space, where a new and elegant town loomed upon the sight, and it appeared like magic, so sudden and impressive was the contrast which burst upon the vision. Churches and school-houses were always conspicuous objects at every new rising place; to us, always pleasing objects, the great conservators of our present national liberties, and the certain safeguards to our future prosperity. The accommodations on this line at the various dépôts are ample, and nothing is left undone to secure the comfort of the traveller.

We arrived at New-Buffalo about 6 P. M., but it is a place more in name than in reality, as it has nothing about it worthy the appellation of either village or town. Here we had the first view of Lake Michigan, which greatly relieved our eyes, as we gazed upon its expanded waters. Its banks are lofty, and the light-house upon them gives altogether a nautical aspect. Taking now a southern course into Indiana, we rounded the southern end of the lake into Illinois, and then veered up by its westerly coast towards Chicago.

We now began to get some view of prairie lands, about which we had felt so much curiosity, nor were we disappointed as they opened upon our view as far as the eye could reach, between the oak openings, with the long grass beneath them. It being evening and dusky, we had not so good a view as we could have wished, but enough to give us the idea of what prairie land was.

We reached Chicago at 9 P. M., after twelve hours' ride, and were not a little glad to take to our marrow-bone stage, after being cooped up so long in cushioned seats in the rail-car. Here, at the depot, we had to encounter a complete Babel of porter, omnibus-drivers, and other important personages, and had not a little difficulty in keeping ourselves from being pushed into a



wrong carriage, or having our carpet-bags politely taken from us. At last, however, we were taken to the Matteson House, where we found every accommodation we could wish, and can heartily recommend the house to all future tourists. We had not time to make any stay in this place, but intended doing so upon our return.

LAKE MICHIGAN, MILWAUKIE, AND FULTON.

The next morning, we embarked on Lake Michigan for Milwaukie, on board the steamer Archer, where we arrived about 4 P. M. This is a wonderful city, numbering, perhaps, thirty thousand inhabitants, when, but few years ago, not a frame-house was upon the spot. The buildings here have a beautiful, light, chaste appearance, being all built of white brick. There is abundance of earth here of that nature which produces this material for building, and great quantities of brick are transported to New-York, and, as we were told, some stores in Broadway are now being reared with them. A great Whig demonstration was held here in the evening.

*Monday, July 5th.*—We took the cars to Eagle Prairie, the terminus of the railroad. As we proceeded, the country presented a scene of great beauty and richness. The views were more extensive, very much resembling English scenery. Clusters of oaks here and there, single, stately trees, with beautiful luxuriant grass beneath them, without any brush-wood, very much resembling the parks of noblemen in England; and good and handsome frame-houses, with nurseries of young trees for fruit and ornament.

Here the railroad terminates, although it is fast progressing towards Madison, the capital. We now mounted the stage for Milton, about sixty miles from Milwaukie. Here the country did not diminish either in richness of soil or in beauty of scenery. We put up at a neat hotel, whose urbane landlord in the morning drove us over to Fulton, about seven miles farther. This is a thrifty rising village, containing two stores, a hotel, large grist-mill, a school-house, some thirty houses or more, and an increasing population. The Rock River, over which you pass at the foot of the village, is a fine large pellucid stream, well stocked with fish, of great variety and size. The railroad from Milwaukie will run through or very near this village, and is expected to come into operation before the winter, and must enhance the value of property.

OLD FRIENDS—CROPS—BREAK-PLOUGH—CATTLE, ETC.

Here we visited some Jersey friends, who were surprised beyond measure at seeing us. We observed their location, and were greatly interested in the beautiful scenery which on all sides surrounds them. It is high prairie land, with excellent grass beneath the oak trees which beautify the land. There is a beautiful running stream flowing through this section of land, upon which they have erected a saw-mill, now in operation. Three of the gentlemen here located with their families were not long since employed in New-York—one a printer, another a jeweller, and the third an engraver—all of them employments widely different from life in the West. Questioning one of them as to his prosperity in his new occupation, he replied that when in the city it cost him fifteen dollars a year for doctors, while he had been out here three years without paying ten the whole time.

In this village resides a young Presbyterian clergyman, who preaches here every second Sabbath, and the other he supplies at some other station. He is under the patronage of the Home Missionary Society, from whom he

receives an annual stipend, aided also by the people among whom he labors. We attended two religious meetings at the school-house, which were of an interesting character. We never saw crops appear finer than those around this place, although some of the farmers, through negligence, or want of time, had neither ploughed nor hoed their corn since it had been committed to the ground; yet, neglected as it was, what there was of it looked healthy.

Here we saw for the first time the break-plough, used for the breaking up of prairie land. It is truly diverse from all other ploughs. Its width is about twenty inches, and it is drawn by four, six, or eight yoke of oxen; cuts asunder every root it comes in contact with, be they as large as the calf of a man's leg, and turns over its wide furrow of eighteen or twenty inches as flat and even as a lady turns her pancakes. We took hold of this instrument, and were surprised with the ease with which we could hold it while we went two or three bouts.

Cattle on these prairies look remarkably sleek and healthy. Cows that are milked are almost fit for the butcher. Turn a horse out here that has the heaves, and he becomes cured. Sheep here thrive well, and wool finds a ready market. Hogs need nothing more than what they eat upon the prairies, giving them a little corn before winter to finish them. Winter grain does not succeed here quite so well as in Michigan, but spring wheat is extensively sown, and yields a good crop.

#### REAPING MACHINE—FLAX—GAME—SABBATH-SCHOOLS.

Here we first had an opportunity of examining the mowing or reaping machine, and at once saw the principle upon which it worked, and did not wonder that it took the prize at the World's Fair. We were not a little amused at a sort of patent gate, quite a Yankee notion, without hinges, but swings round over your head, as you pass through it, with space sufficient for a horse and wagon.

Flax appears to succeed here. We examined several pieces in bloom, showing its beautiful tiny blue flowers. We saw also the hemp plant, which is altogether different from the flax.

Game, of course, is plentiful. Quails and plover, snipe and the prairie hen, are abundant. We saw several of the last rise like the English partridge, which presented a fine mark for the sportsman. The eggs of this Indian bird have often been hatched under the common hen, but the young always run off when old enough, and join their wild companions on the prairies. A young lawyer resides here, whose efforts in the cause of Sabbath-schools are praiseworthy. Himself attends three every Lord's day, while he has been the means of establishing many others. On the fifth of July, a celebration was got up, at which five hundred Sabbath school children were present, a scene heretofore unknown in these regions. This young man is by no means like the lawyers of old, upon whom the Saviour pronounced his anathema for keeping to themselves the key of knowledge.

#### PRAIRIE FLOWERS—MADISON—STUMP ORATOR—CLERGYMAN'S RESIDENCE.

*Wednesday, July 7th.*—We left Fulton for Madison, the capital. The country is still rich and beautiful. We observed among the flowers in the prairies the beautiful dwarf tiger lily, widow's tears, major convolvulus, white water lily, dog rose, and the globe thistle; also, a sort of tall rocket, and penny-royal, much taller than it grows among us. Madison is pleasantly

located between two small lakes. The newly erected State House, beautifully located among trees, is a noble building of stone, and has a good library of law books. There are convenient and spacious rooms in the building, well adapted for all employed in the business of the State. The land around this place is in the hands of speculators, who are willing to part with it only at exorbitant prices.

Here, a Jersey farmer, now a resident of this State, was haranguing upon politics, among a motley group of hearers, among whom was a prominent individual with a broken pipe in his mouth, who, we were afterwards informed, was a judge upon him and the rest of the auditors. I fear our friend's speech had but little effect, for many exclaimed, as they did of old, "He is mad, or hath a devil; why hear ye him?" This place numbers now, perhaps, from five to six thousand inhabitants; and when the railroad reaches it, it will doubtless grow rapidly.

*July 8th.*—On our return to Fulton, the next day, we visited the residence of a Jerseyman, a Western clergyman, who gave us a letter of introduction to his son. We were gratified at the improvements all around. Apple and other fruit trees were coming into bearing, and the beautiful display of flowers betrayed a taste which we do not often meet with in the West. A young racoon was running about the premises, like a tame cat. As we left this place, we came over what was called Liberty Prairie, where the scenery and views were more splendid, if possible, than any we had before seen. A great abundance of the hazel-nut was growing, which indicates the goodness of the land.

THE LEGISLATOR—TEMPERANCE LECTURE—JANESVILLE—FENCES—PRAIRIES—  
INDIAN MOUNDS.

*July 9th.*—Left Fulton for Janesville, on our return homeward. Here we saw a man hoeing his corn in his check shirt, and with an old straw hat on, hardly worthy of that name, and his house, a log building, of the lowest description; yet this man had been sent to the Legislature, and doubtless knew his duty, and performed it more faithfully and usefully than others more learned, or who manifested by their exterior a higher grade in the scale of society.

We were again very much amused the evening we spent at Janesville, by our friend, whom we had heard at Madison, appearing here in the public thoroughfare, lecturing upon temperance. To give the people due notice, he had borrowed a bell, and rung it, that all might be apprised of the opportunity of listening to his powers of oratory, while he declaimed most vigorously against the tyranny of King Alcohol. He assured them of another visit at the assembling of the Legislature.

In this place considerable flour is manufactured. One mill, we were told, drove six pair of runners. The Court house is a noble-looking building. Here is also a ladies' seminary of considerable note. Stages run from this place to Belvidere, through which the cars pass on the way to Chicago. On the following morning, we took passage in one of these vehicles, passing through Beloit and Scotch Plains; the latter a settlement of the sons of Cambria, whose beautiful, well-cultivated farms and handsome residences proved that these sons of North Britain keep up their characteristic qualities of thrift and industry far away from their fatherland. On this route we saw some wire fences. Some fields are bordered by a ditch and bank, similar to



those seen in England, needing nothing but the thorn planted on them to give the country a complete English appearance.

On the prairies in this section there is a great want of streams. The water is drawn from wells to supply the animals that graze upon the herbage, and the want of trees to defend them from a burning sun is a great drawback upon their thriving. This is an idea that buyers of western lands should always remember, particularly where grazing lands are sought after. The driver pointed out to us several circular burnt places in the grass which had been caused by lightning, and several telegraph posts close by had been shivered by the same means. We passed several Indian mounds, remnants of a race now extinct, whose history is unwritten, and must for ever, perhaps, remain in oblivion.

CHICAGO—THE METHODIST CLASS—AFRICAN MISSIONARY—THE TWO JERSEYMEN.

We arrived at Chicago about 8 P. M., and were happy to think the next day was a day of rest, as here we intended to spend the Sabbath. The next morning, as we were reconnoitring the city to find out the various churches, of which the many spires told us there was no lack, we heard the voice of singing in one, and the writer entered, and found himself present at a Methodist class-meeting, which to him was very interesting.

We attended the Presbyterian, the Baptist, and the Methodist churches during the day. In the afternoon, we listened to a sermon from a son of the ocean, who, by his earnestness and nautical phrases, as well as sailor-like action, produced some smiles from his hearers. We attended also a convocation of the Sabbath-school children, who nearly filled the body of the church. They were addressed by Rev. G. Thompson, a missionary from Africa, who greatly interested his juvenile auditory by his account of Africa, and of the manners and customs of the people, and showed them some of their idols and charms, and their implements of husbandry, and pieces of cloth spun and woven by the natives.

We were invited to take tea at a friend's house who was from Jersey, with whom and his brother we spent a very pleasant season. The one is conducting a large merchant's store, and the other is a builder. We came in contact also with two other individuals, who told us they were from our own State, and thought of returning. When we inquired their reason for this, one told us that there was scarcely any fruit here. The other said his religious advantages were not so abundant as at the East. These reasons, the writer must confess, to him appeared paltry, and not exactly true. As it regards fruit, as the State is growing older, that will soon be remedied. The latter reason, as we judged from our own personal observation, was not altogether correct, as there was every opportunity for means of spiritual improvement. After some further conversation, our Jersey friends thought they should delay their return from the West for the present at any rate.

Chicago has been of most rapid growth. Its location on this beautiful lake must insure it to become, perhaps, the Queen of the West. Fourteen years ago it numbered about four thousand souls; now its population is upwards of forty thousand. There is one little drawback upon it: the soil below the surface is like a piece of sponge saturated with water, owing to its contiguity to the lake, so that wells and cellars cannot be had, and the city is supplied with water from the lake.

## MONROE—DELAY—NOVELS—INFORMATION OF ROUTES.

*Monday, July 12th.*—We left this city by the southern route. We had gone before by the central. We now rode for some time near the borders of the lake, and were pretty well powdered with white dust and sand, with which the banks of the lake abound. This route did not strike us as being so interesting as the central one. The country appeared not so well settled, nor had improvements been made so extensively. We dined at a place called White Pigeon, which is considered about half way to Lake Erie. About 9 P. M. we were at a place called Monroe, the terminus of the road, where we took up our abode for the night, after having obtained the *pleasing* information that perhaps the boat for Buffalo would not be in until to-morrow afternoon, as one boat of the three which belonged to this line was disabled and under repairs. However, much as we were chagrined and vexed, we resolved to act the part of philosophers, and bear up under the disappointment.

We had to ride about two miles to the lake, where the boat was expected, and there were coolly told it would not arrive until the afternoon. Hence we had to make up our minds in what manner to occupy ourselves during so many hours without *ennui*. Urchins were about with books for sale; but alas! they were James's or Eugene Sue's works of fiction, a line of reading to which we had not accustomed ourselves, and did not feel now disposed to commence it. If the friends of good reading and moral training would be as much upon the alert to supply the travelling public with profitable books, as are the votaries of fictitious and often licentious works, it would be a blessing to society. The writer in vain looked for a quiet, retired place in the hotel, where he might in the use of pen and ink beguile the hours; but this could not be, as the house was thronged with travellers in the same predicament as ourselves. However, he retired into the cars, which were waiting for the arrival of the boat, and at the extreme end of one of them was a shelf, which did very well for a writing-desk, and thus he was able to pass some hours in employment, by which the time fled without weariness.

Travellers should always be guarded against the many agents of different routes, who all represent that to which they are attached as the safest, the quickest, and the cheapest, while there is but little or no truth in their assertions. Most of them are decoys to travellers, who think of nothing but to further the interests of those by whom they are employed. The best information can generally be had at respectable hotels, and of this every traveller should avail himself.

## LAKE ERIE—NIGHT PASSENGERS—BREAKFAST—BUFFALO, ETC.

We went on board the Northern Indiana, a fine, splendid floating palace, and started about 4 P. M. for Buffalo. We put in at Cleveland about 11, and there took in a great number of passengers and a vast amount of freight, after which the floor of the state deck exhibited a curious spectacle of humanity, being literally covered with human beings lying prostrate, with any thing for a pillow.

The night passed away without any disaster, but the breakfast season was a moment of great excitement, as all were anxious to be at the first table; but, of course, etiquette gave the ladies the first chance, and gentlemen having with them a wife, sister, or female friend, were admitted also, but the unlucky wights who were deficient in these appendages had to wait.

Soon after breakfast we were at Dunkirk, where the boat was delayed a

short time for passengers and other business ; and a little before noon we were in sight of Buffalo, the appearance of which place was hailed with considerable interest by the passengers. The stars and stripes, the flag of our country, floated on the breeze. Here the writer parted with his friend, with whom he had thus far journeyed, and who took the direct route for New-York, while he proceeded to Hamilton, in Canada, taking the Falls of Niagara in his way.

#### THE FALLS OF NIAGARA.

The cars left Buffalo about 4 P. M. for the Falls, a distance of twenty-two miles ; fare, sixty cents ; about one hour's ride. Proceeding to the Cataract House, we found it full, and, preferring a more quiet place, went to the House of the Falls, where every attention was shown us ; and after taking tea, we went to view the great wonder of nature. The writer had been here sixteen years before, on the Canadian, but not on the American side ; therefore the points from which he now viewed this thundering of waters were altogether new. Like the experience of all others, the words of the wise man are here most emphatically true : "The eye is not satisfied with seeing, nor the ear with hearing." The more we stood and gazed upon the scene, the interest seemed to increase upon us. Looking down from the brink perpendicularly into the immense chasm below caused a slight tremor to come over us, as we felt the vibration of the ground beneath us. You can here stand in a direct line with the little falls, and reach your hand and arm into the maddening stream, and feel palpably the force of the rushing cataract ere it takes its plunge into the abyss below.

Proceeding to the left, you approach the greater fall, which nearly fronts you, but are not able to come so near it as you can to the other ; but by going up a sort of observatory there constructed, in the form of a light-house, you have a pretty good view of the cataract, and so near that the spray falls upon you. As it was towards evening, and the light was fading away, the tremor of the building, as we ascended the dark staircase, made us a little nervous, until we arrived at the lantern on the summit, where the view well recompensed us for our pains.

#### THE RAPIDS—THE BRIDGE—TOLL—INDIAN MANUFACTURES.

We soon retraced our steps across Goat Island, and returned to the village, thence to look at the rapids, over which man has built a bridge, in spite of the fury of the boiling element. The words of Horace never struck the writer so forcibly as when he stood upon this structure, and viewed the angry, tumbling, leaping, foaming billows, the length perhaps of a mile ahead of him, threatening to hurl every thing before them : "*Nil mortalibus arduum est*," "Men can effect any thing." The rapids of the Nile have been often mentioned as a grand display, and we had seen a panoramic view of them. They may, perhaps, be more steep, but hardly more imposing to the sight than those upon which we were now gazing. Having passed the bridge and going through a gate, we were very politely accosted by a young man, who told us it was customary here to pay toll, at which we at first made some little demur. However, we paid our twenty-five cents, and entered our names in the roll-book, and then were at liberty to pass through as often as we chose during the season.

We find here a great many Indian women and girls, with their various curious products for sale, and numbers of stores are kept filled with similar articles.

We were up the next morning early to take another view of the Falls before



we left, and, as the sun was shining clear, the mist from the falling waters presented a most beautiful rainbow, more splendid, we thought, than any we had ever seen before.

SUSPENSION BRIDGE—CANADIAN SIDE—MUSEUM—THE FERRY.

We now made our way to the suspension bridge. Here we were taxed another twenty-five cents, and then were admitted on this swinging transport, which our single weight, as we passed over it, caused to vibrate. The large wires on each side of the river are thrown over upright wooden piles, supported by heavy framework, and their ends secured by stone blocks level with the ground. The bridge at Lewiston has no wooden framework; but the ends of the wires appeared to be secured by stone only. These are well worth the attention of the tourist. The height at which they hang above the chasm below, the multiplicity of wires, which are so twisted and united as to give strength to the whole, astonished us, while we admired the ingenuity and boldness of the man that conceived and perfected this wonderful piece of mechanism.

Being now fairly landed on the Canadian side, and in the dominions of Queen Victoria, we proceeded to the Falls, which were about a mile up the river. Numerous drivers offered to take us thither, but this we declined, choosing rather to keep our change in our pockets, in reserve for more important occasions.

We passed several stands, kept mostly by colored men. Some of them offered to us, besides refreshments, pieces of stone taken from the table rock, cut in the form of hearts, crosses, and other devices, highly polished, some of which we purchased as memorials of the place.

Opposite the little fall, the view is grand. You have here a front view of the tumbling cataract, and thus can measure by the eye its height and breadth. You then proceed toward the larger sheet, which also is directly before you, and may approach to the very edge of the water, as you do at the little fall on the American side.

The views of both cataracts here are superior to those on the opposite shore. The boarders here at the hotels may sit at their windows or upon the verandahs, and feast their eyes all day upon these stupendous prodigies.

We were invited to use the oil-cloth dress, and descend under the sheet of the great fall. This we declined for want of time, but took a turn into the museum, which well repaid us, as it was stocked with the various animals natural to these regions, as well as with curiosities of Indian origin, insects, reptiles, ores, metals, and skeletons of creatures that perhaps are no longer extant.

We fully expected when we emerged here to have had another levy upon our purse, and were wondering at our good luck, and being fairly out in the public road, thought we were safe; but not so, for an Ethiopian accosted us, and very politely, with a most graceful inclination of the body, inquired of us if we had left any thing with the lady who had the charge of the museum, to which as we could not answer in the affirmative, another twenty-five cent piece was handed over.

A great number of the animals preserved in this museum have come over the Falls, but no creature survives the plunge, not even aquatic birds, but are found dead some distance below. Instead of going back the way we had come, we determined to be ferried over in the usual boat, and proceeded to the place of embarkment. This was a winding descent, but is used by

carriages of all descriptions. Having descended as low as the bed of the river, we waited some little while for the return of the boat, which soon appeared. Had the boatman been old and ugly, we might have fancied we were under the protectorship of Charon, transporting us to the land of shades; but the roaring of the cataract, and the splashing of the spray, convinced us that we were in a world of life; and our ferryman showed too much carefulness in exacting his shilling from every soul that occupied his boat, to allow us to be deceived on this point.

#### CROSSING THE RIVER BELOW THE FALLS—SAM PATCH, ETC.

In crossing this part of the river, we go up stream some way nearer the great fall, and have a sublime view of both, as we look upwards to the summits whence they plunge over. We landed just below the foot of the little fall, and some of us, upon leaving the boat, climbed over the broken fragments of rocks below the edge of the plunge. As you look upwards no language can portray the awful grandeur which the scene presents. On returning to the ferry-house, we ascended a flight of stairs, numbering nearly four hundred steps, which landed us on *terra firma*. There is a machine, worked I believe by a water-wheel, by which you may be let down in a car, for eighteen cents, instead of having to traverse the way by the stairs on foot.

We were shown the place where Sam Patch leaped over without being hurt, although afterwards he lost his life, at the Falls at Rochester, by the same rash attempt. The drowning of two young people here, not long since, was a very melancholy affair, and shows the folly of careless play in places of such peril.

#### ROUTE TO LEWISTON.

It being now nearly time for the stage, we had to leave all those places which had so deeply interested us, and soon found ourselves receding from the Falls on the plank-road towards Lewiston, a distance of about eight miles. The scenery on this route is sublime in the highest degree. The various views you get of the banks of the river thrill the mind with enchantment. As you approach Lewiston, the view below you, towards the town, looks like fairy land. Brock's Monument, still in its dilapidated state, is a prominent object. We were told this was soon to be repaired, as some thousands of dollars were now in hand to accomplish it. We passed a high wooden frame, erected as an observatory, from whence you must obtain a most extensive view of the whole surrounding country.

Other points of attraction were noticed along the road, and notices posted up, to engage the eye of the traveller, such as, "The Devil's Hole," "The Whirlpool," &c.; all which, by reason of the brevity of our time, we were unable to visit.

#### ON LAKE ONTARIO TO HAMILTON, CANADA.

At Lewiston we found several steamers upon the river for Toronto and Ogdensburg; and the boat Rochester was then coming, and would leave again for Hamilton at 1 P. M. After having dined, we were soon on board, and reached our destination about 6 P. M. After a lapse of sixteen years, Hamilton was hardly to be recognized by us as the same place. The court-house was the only public building we could recognize as being the same. After some little difficulty, we at length found ourselves at the door of a friend, whose kindness we had often experienced when we formerly resided here.

We went round the city, during the evening, to view the new buildings,

which were going up in every direction; entered the new Scotch Presbyterian church, which is a beautiful, chaste building, heard the clergyman finish his discourse, and afterwards retired to rest, in order to be ready for the boat in the morning, which was to start at 7 o'clock.

*Friday, July 16th.*—We were on board the Rochester boat at the hour she sailed, accompanied by some musicians, who enlivened the scene with some performances. Lake Ontario, on which we are now embarked, appears to have numerous springs rising up from the bottom, and which are apparent from the clearness of the water. The stream also of the river is for a long while apparent, as if unwilling to mix with the waters of the lake. Wild ducks were swimming at a distance, and the fineness of the morning rendered the sail pleasant and exhilarating. We passed Niagara, Youngstown, and Port de Louis, and reached Lewiston about noon. We then took the stage for the Falls, and about 4 P. M., the cars for New-York, by Rochester, and were not sorry when we found ourselves "homeward bound."

#### NIGHT TRAVELLING—BOAT RACING—HOME.

We reached Rochester about 7 P. M.; had to wait until half-past 8 before the train started, and we then made up our minds for a night's ride, and as it became dark endeavored to compose ourselves by dozing away as many of the hours as we possibly could. The thought that every mile we passed over brought us so much nearer our beloved home, cheered up our spirits. When we saw the early twilight through the windows, we felt rejoiced that the night was gone, and looked out upon the country, as we passed along, with renewed interest. We found ourselves at Albany at 6 o'clock the next morning, and took passage on board the "Alida," for New-York.

While steaming down the river, the boat "Francis Skiddy" came up in our wake, and quickly endeavored to pass us. When she had come alongside us, we were politely required to move to the further side of the vessel. However, the "Skiddy" did not succeed in passing us then, for, owing to some disarrangement in her machinery, she veered off to the shore; but coming up again, a little while after, she passed us in gallant style. The captain was evidently mortified, but told us his boat had been running fourteen years, while the other was new. Afterwards, as we passed several places on the river, numerous little urchins hallooed to us, and reproached us that we had been beaten.

We reached New-York at 3 P. M.; crossed the Jersey Ferry, and took the Morris and Essex railroad train; and reached home at 6 o'clock, after an absence of about three weeks, having prosecuted one of the most interesting travelling routes the writer had ever undertaken, and, through the favor of Heaven, without the occurrence of any accident to mar the pleasures of the journey.

#### HOW TO ENRICH THE FEW AND IMPOVERISH THE MANY.

"*The Washington Mills*," says the *Utica Gazette*, "were on Thursday sold at auction for \$40,000 cash. Frederick Hollister, Esq., the late agent of the mills, made the bid for Harry Bushnell, Esq., of Utica. The property consisted of the real estate, factory, water power, and machinery, which is said to have cost over \$200,000, and was recently appraised at about \$115,000. The machinery was sold some weeks since, upon a judgment in favor of John Hollister against the Lewis County Bank, which had purchased it upon a judgment against the mills after the failure."

The tariff of 1846 was advocated as a *democratic* measure, but its effects



thus far have been those of breaking down the small manufacturers throughout the Union, and enabling the wealthy ones to purchase their machinery at half its cost. Lowell and Lawrence flourish while all the smaller establishments are being closed, and thus the policy which was to annihilate monopoly is gradually creating one more powerful than any we ever yet have seen. The advocates of protection desire to see the cotton machinery taking its place in the South, and the woollen machinery doing the same in the West, but the people of the South and West are determined to tax themselves for the cost of sending their cotton and their wool to New-England, and to do this in the name of free trade! So, too, with iron. Protection to that interest is regarded as a measure intended for the sole benefit of Pennsylvania, and yet the large establishments of that State are still in operation, while almost all the furnaces and forges of the remainder of the Union are silent, and most of them have been sold out by the sheriff. The policy of 1846 is that of centralization, while that of 1842 was that of decentralization. The former tends to separate the plough from the loom and the anvil, while the latter tended to bring them together, and thus to enable the farmers and planters of the Union to economize transportation.

#### GROWTH OF WOOD AND OF FRUIT—CIRCULATION OF PLANTS, &c.

A late *Liverpool Times* has the following paragraph:

"**RIPENING FRUIT ON TREES.**—The last number of a Paris journal gives a plan for forwarding the ripening of fruit on trees.

"There exist in trees two kinds of sap, one nourishing the wood, and the latter the flowers and the fruit. The process consists in binding tightly round the lower part of the branch on which the fruit is, a piece of wire, in order to stop the descending sap, which, thus arrested in its progress, flows with great abundance to the fruit, increases its size, and brings it to maturity a fortnight or three weeks earlier than in the natural way."

The Paris journal must have a very low estimate of Nature's skill in the formation of the "two kinds of sap," or a very exalted one as to her power of transformation, if he expects to find fluids, that were exclusively designed to nourish "the flowers and fruit," voluntarily turning away from their proper place of deposit, into the branches, like an idle boy from his task; or the "two kinds of sap" must be wonderfully alike, if each of them can be made, "by binding round the lower part of the branch on which the fruit is, a piece of wire," to perform the service designed exclusively for the other. It would seem to us that no one but a Frenchman would have thought of such a revolution in Nature's government. It would be a "coup de main" of a novel character.

We have never happened to meet with the evidence that shows that there are "two kinds of sap" in the same tree. Are there two sets of vessels for conveying them through the trunk, each separate from the other? At least, the two must be wonderfully alike, to be made, by the mere application of physical force, to do each other's work.

There are mysteries, not only in regard to vegetable life, but vegetable growth also. We suppose, however, that a few facts on this subject are abundantly established, and among these, that sap, or rather that vegetable matter in solution, or the elements of it, are carried up from the root, through the interior growths, to the leaves, and after undergoing important

changes there, that the sap descends, in exogenous plants, in the very outermost organism, and forms new wood, or new cells of herbaceous structure, as the case may be, between that already formed and the inner bark. We know of nothing tending to show two *kinds* of fluid within the same or kindred vessels. Why fruit is formed from this bud, and why leaves or wood from that, has not yet been communicated to us. We know the fact, however, just as we know other facts in nature. And we also know, or suppose that we know, that these buds are ordinarily formed in the interior of the trunk or branch.

We were surprised to see, in a recent article by our learned friend, Professor Mapes, an intimation, though in the form of an inquiry, of a disbelief in the idea of descending sap. He refers to "the fact" that no accumulation of sap is found on the upper side of an opening made in a living trunk. The fact may be so, perhaps, and yet it may not be conclusive against the return of the sap from the extremities of the growths.

We can imagine that the action of these conductors might be materially affected by cutting off their connection so that they would even cease to act at all; and we might at least expect that, in the immediate neighborhood of the interruption, it might be essentially diminished.

The increased density of the fluids that have been acted upon within the leaves, may furnish also some reason for supposing that we should witness no accumulation of sap, under such circumstances, when the more watery fluids just entering the tree, and acted upon, for aught we know, by agencies not operating elsewhere, might flow abundantly, even when the connection of these vessels with those above them was interrupted.

There are wonders quite as formidable connected with this subject, in reference to which the facts are well-established. Why cannot our farmers make maple sugar after the season of warm days and frosty nights? It is well known that this antagonism in the temperature of the day and the night is indispensable to the abundant collection of sap.

This fact has given a sort of technical name to certain snows that appear out of season. They are called *sugar snows*. Such contrasts of weather will always secure "a flow of sap." We would like to know why June should not be the best month in the year for collecting this liquid sugar. And again, we should like to know why a small bore made in a tree is just as effectual as a large one, so far as the flowing of the "sap" from the orifice is concerned.

That the facts are as indicated, in reference to these points, we are entirely satisfied. That no sufficient explanation of them has been given, is quite as certain. And we must be permitted to believe in one kind of sap, and that this first ascends and then descends, not only on account of numerous experiments by scientific men tending to confirm this doctrine, but because, even in the absence of all knowledge of those experiments, we cannot well conceive how fluids which, as everybody says, ascend in the inner organism of a tree to the very top, can go to form outside layers of wood, from topmost twig to lowest root, unless they do also descend; and as long as scientific men fail to discover separate organisms for conducting different fluids from the root of a tree to the leaves, we must doubt whether two separate distinct fluids are conveyed.

This leads us to another point of interesting inquiry. What is the most favorable condition of things if we would secure fruit, and what if we would secure growth of wood? Without a very large array of facts, as a foundation of our belief, we suggest that an abundant flow of the juices of the plant has a tendency to promote the growth of wood, while a thorough chemical action in the fruit-buds may tend to promote the quantity and affect

the quality of the fruit. This would be entirely in accordance with the asserted influence of the wire in the passage quoted from the Paris journal. Binding a wire round a branch might naturally enough be supposed to retard the descent of the sap, and it being thus retarded and longer exposed to the chemical action of the sun and air, the growth of the fruit may be favorably affected. So, too, an accumulation of chemical agents, as light and heat, are found to affect the quality of fruit very materially. We should like to hear from our correspondents on this subject.

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

### THE THORNY MULBERRY.

BY N. D. SMITH.

THE Bois d'Arc, or Osage Orange, having attracted of late so much repute for hedging, some account of it in its native locality may not be uninteresting to your readers. This tree is of the genus *Morus*, or the family of the Mulberry, and would be much more appropriately termed the Thorny Mulberry. It is dioecious, the male and female blossoms being produced on separate trees. The sap is a milky juice, and stains a brown color. Silk-worms thrive on the leaves. The roots have a yellow bark, similar to all other mulberries, and have a tendency to spread a great distance near the surface of the soil, and wherever cut with the plough or hoe, send up sprouts. The fruit is a ball from three to six inches in diameter, fibrous in its structure, the seeds resembling those of apples, mingled among the fibres. The fruit when fresh is eaten with avidity by horses and cattle, and is torn in pieces for the seeds by birds and squirrels. The native locality of this tree is in the rich valleys and borders of prairies of southern Arkansas and northern Texas, above the raft of Red River, where it frequently attains the height of forty feet, and three feet in diameter; though in general it is not inclined to tower up, for being of a thrifty growth, bend with their own weight and become crooked. The timber is proved of inestimable value for wagon and carriage wheels; for though very hard when seasoned, it is worked without difficulty, and is easily cut when green. The wood shrinks but slightly in seasoning, and when dry, will not leave the iron when put on it, though exposed to the weather. I know a heavy road wagon that has now been in hard service twenty years, the wheels of which ring under the knuckle like a piece of solid cast-iron. If I am not much mistaken, our friend Porter, of the *Spirit of the Times*, drives a buggy with wheels of this wood, which I saw shipped to him from here a few years ago. It is well adapted to some kinds of furniture and turners' ware, as it receives a fine polish, and acquires a beautiful nut-brown color. It also affords a good dye, equal to logwood or fustic. For knotty walking sticks, the sprouts are much esteemed. But for fence posts, no timber can equal it, and it is now freely used for that purpose at a high price. The name Bois d'Arc, or bow-wood, was given to it from the Indians making use of the tough, elastic young wood for bows, when the first French settlers explored the country.

I have about half a mile of this wood in hedge that is twelve years old. Some of the trees are now bearing fruit for the fourth time, and are twenty feet high, and six inches in diameter: it is a perfect defense against man and beast. For an outside boundary to a large plantation, where space is no



object, nothing can be more superb or ornamental; but the shade and the green roots will leave space for a wide wagon-road on each side useless for cultivation by the time the tree is ten years old. This is the case in our climate; but as the tree may not grow so large at the North, I would not willingly suggest any idea that would have a tendency to check the spirit of improvement in this age of progress. Have you not, on the south side of Long Island, (there were when I saw them, forty years ago,) some barren sandy plains, on which this tree could be cultivated for timber, with profit? It is far superior to the black locust, and adapted to every purpose to which that timber is applicable, and is of quicker growth.

A circumstance respecting this wood may not be out of place here. On the trunk of the large tree an excrescence is frequently found, which, when sawn into, exhibits a surface beautifully curled and variegated in color, and hard as ivory. Some twenty years ago, an ingenious blacksmith of our village, who possessed considerable skill in making knife-blades, used these knots for handles. James Bowie, afterwards the Colonel Bowie who fell in the battle of the Alamos in Texas, then a travelling sportsman, stopping among us, engaged the smith to make him a hunting knife, to be handled with this wood, and ornamented with silver. This was done, and after leaving, Bowie showed this knife to many of his friends, for the beauty of the handle; and soon the blacksmith was well furnished with orders from a distance for Bowie knives, with the Bois d'Arc handle. Thus, the Bowie knife had its origin in a commendable purpose, though it has since been perverted, like that of the guillotine; and the fate of the inventor, though less melancholy than that of the benevolent Frenchman, is sufficiently sad. He has been many years a pauper on the county, totally blind—a victim of intemperance.

*Washington, Ark., July 18, 1852.*

#### HARVESTING MACHINES.

THE trial of these useful inventions before the Ohio State Board came off, as previously announced, on the 30th of June.

Twelve machines were entered for the premium.

The rules, for judging the comparative merits, were as follows:

1. Which machine cuts the grain or grass in the best manner.
2. Which does the most work in a given time.
3. Which leaves the grain in the best order for binding.
4. Which causes the least waste.
5. Which is the best adapted for uneven surface.
6. Which is the least liable to get out of repair.
7. Which is the least cost.
8. Which requires the least power to drive the machine.
9. Which requires the least manual labor.
10. Which is the best adapted for stony or stumpy ground.

Whichever of the machines so tried has, combined, the greatest number of the above qualifications, in the opinion of a majority of the committee, to be pronounced the best machine.

The answers severally given on these various points were as follows: As to the

1. Hussey's, Densmore's, Seymour & Morgan's, McCormick's, Purviance's; all nearly or quite equal.

2. McCormick's, Densmore's, Purviance's. Others that cut a little narrower swath were regarded as nearly, if not quite equal, under this head, owing to their greater speed.

3. Densmore's, Purviance's, Hussey's.

4. Hussey's, Purviance's, Densmore's.

5. Seymour & Morgan's; but those above named very near as good.

6. Hussey's, with Seymour & Morgan's next.

7. Hussey's.

8. Seymour & Morgan's, and Densmore's.

9. Densmore's.

10. Hussey's, McCormick's, Purviance's, Seymour & Morgan's, Densmore's; alike.

PREMIUMS.—The committee recommend that the State Board award a Gold Medal, as first premium, for Densmore's Reaping Machine, by Warder & Brokaw; and a Silver Medal, as second Premium, for Hussey's Improved Reaping Machine, by Minturn, Allen, & Co., Urbana.

COMPARISON OF MOWING MACHINES.—1. Ketchum's, and Casle's.

2. Ketchum's, and Hussey's.

5. Ketchum's.

6. Ketchum's, and Hussey's.

8. Casle's.

9. Ketchum's, and Casle's.

10. Ketchum's, and Hussey's.

PREMIUMS.—The committee recommend that the Board award a Gold Medal, as first premium, for Ketchum's Mowing Machine, by Howard & Co., Buffalo, New-York; and a Silver Medal, as second premium, for Hussey's Machine, by Minturn, Allen & Co., Urbana.

The cost of Densmore's Reaping Machine is \$140. It cuts a swath five feet ten inches wide.

Ketchum's Mowing Machine requires two ordinary horses, and costs \$110.

We commend the attention of farmers every where to this subject.

#### IRELAND, TURKEY, AND RUSSIA.

IRELAND is emphatically the land of British free trade, and it is, as a necessary consequence, becoming weaker from day to day. Turkey is the paradise of British free trade, and land can be bought, as we are told by a recent English traveller, in the immediate neighborhood of Smyrna, at five cents an acre. Russia is emphatically the land of protection, and she advances daily in power and prosperity, because she is making a daily increasing market for the labor of her own people and for that of the people who come to her from other countries, as is shown in the following extract from one of the journals of the day:

"The activity of the native Russians is so great, that it can only be compared to what we have heard of the ancient Greeks. Their features also are much like those of the Greeks, so much so that many ethnographers consider the Russians and Greeks as belonging, originally, to the same race. In addition to their *savoir faire* and urbanity, one is also reminded of the old Greeks by the Russian architecture, even in the case of the peasants' houses with their tasteful pillared halls, their colonnades and embellishments, the Russian team of three horses abreast, their dances and choral song, with choral leaders, like the ancient Bacchantes; above all, their love for elegance, their wit, and their tendency to trade; and even in matters of state, in which the tendency is to make the

interest of the whole and of the state outweigh all private interests, we are reminded of Sparta and of Plato's ideal political mechanism.

"What Russia can effect in the matter of mingling races, and that in this respect America can alone be compared with her, is shown by what has taken place within a few years on the Black Sea, and especially upon its southern shores. Eighty years ago Russia had not a foot of land there; it is hardly sixty years since the foundations were laid of her ports upon her southern seas, and yet already the population of Odessa, for instance, is composed of emigrants, real settlers—not strangers stopping for a moment—from the Alps, the Pyrenees and Ararat, from Sweden, Malta, Egypt, from the Grecian Archipelago and the Spanish Balearic Isles, French, Germans, and Italians, people of all religions and sects, Great Russians and Little Russians, Serbs, Bulgarians, Jews, and Armenians; and labor is organized in that port in a truly national manner: Slavonians and Dalmatians, for instance, work at the docks, Gipseys are the smiths, Jews the bankers, brokers, and factors, Germans, French, and Italians the wholesale merchants.

"An idea may be obtained of the grandeur of the internal colonization from the fact of the existence of spots where flourishing German colonies, reaching in some instances to populations of 100,000 souls, dwell together—colonies which retain their German customs, mingled with Russian peculiarities and organization."

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FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

IS IT WISE FOR THE FARMER TO INCUR DEBTS IN THE IMPROVEMENT OF HIS LANDS?

BY HON. R. B. HUBBARD, SUNDERLAND, MASS.

In recommending to farmers improved methods of culture—in urging them to drain their swamps, to fill their yards with muck, to purchase mineral manures when needed, to plough oftener and better, to expend more for seeds, to keep their stock better, and better stock—I am often answered thus: "We have not the means. We can barely make the ends of the year meet; and to incur debts in the improvement of our lands would be worse than folly."

Allow me, Messrs. Editors, to reply to such objections, through the medium of your valuable journal.

"Whatever is worth doing at all, is worth doing well." This adage holds good in agriculture, as well as in the culture of mind.

Now, if agriculture is not a paying business, let it be abandoned for that which pays better, if such can be found. It cannot, however, be denied that the proper tillage of the soil pays, and pays liberally; that of all employments in which man has ever engaged, it is the most conducive to health of body and vigor of mind; the most promotive of independence in thought, in word, and in action, and of moral purity, both private and public.

It is also the most *natural* employment of man. In the history of the creation, we are told that after the habitation of man was fitted up and made ready for its new possessor, "there was not a man to *till* the ground;" implying, most certainly, that tilling the earth was to be his avocation—that, in the economy of Divine Providence, this was the post assigned him.

Furthermore, we are told that "the Lord God took the man, and put him into the garden of Eden, to *dress* it and to *keep* it."

Are we not warranted, then, in asserting that the most natural, the most appropriate, the most dignified employment for the descendants of Adam is agriculture?

If this be true, farming, properly conducted, must be remunerative. Tyrants compel their vassals to labor without pay, and even to make bricks



without straw. Not so with Him who has promised seed-time and harvest to the husbandman.

The tiller may, and often does fail to obtain subsistence from the fruits of his labor. Let him "blame the culture, not the soil."

But to the question: Is it politic or wise in the farmer to make improvements faster than he can obtain the means from the products of his farm?

The merchant borrows capital on which to trade; the mechanic and the manufacturer find it for their interest to do the same: so in every department of human industry. Among the most enterprising and the most successful are those who husband their means so well as to make capital pay more than the legal rate of interest, and who, consequently, are induced to borrow.

Why should the farmer constitute an exception?

A merchant wishes to purchase flour: he has no money to spare from his business. Thinking the operation a safe one, he borrows enough to purchase five hundred barrels. At the end of three months he has disposed of his flour, refunded the money borrowed, and pocketed five hundred dollars, the net proceeds of his adventure. A farmer has ten acres which he intends to sow with wheat. It is capable of producing but ten bushels per acre. By an outlay of five dollars an acre, for phosphate of lime, ashes, guano, or such other mineral, vegetable, or animal manure as the soil may require, the yield may be increased to fifteen bushels, and for several succeeding years in the same ratio, giving a net gain as great as in the other case supposed. The cases differ only in this: in the latter, the return is not so speedy; while in the former, success is far more uncertain.

Thousands of acres are annually planted with Indian corn which produce no more than thirty bushels per acre. By an outlay of ten dollars an acre, the product might be increased to at least forty bushels, which, together with the increase for four years following, would refund the outlay, with at least twelve per cent. interest.

On most of our farms are peat swamps, yielding little else but snakes, frogs, lizards, and mosquitoes. This land may be made valuable; but it requires labor. The owner says he cannot afford to reclaim it. Can he afford to be deprived of its use? It cost him something originally, on which cost he is paying interest. Then he is taxed for it, and must keep it fenced. Yet it yields him nothing but reptiles, insects, and miasmata.

Allow that it will cost fifty dollars per acre to subdue and make it productive. It will then be good for two hundred dollars—a net profit of four hundred per cent. Can the merchant boast of more profitable investments?

Furthermore, the farmer has advantage over the merchant, in the certainty of his results. The former invests his capital, *hoping* a profitable return. His operations are all based upon the doctrine of chances. He is as likely to fail as to succeed, and even more so. Not so with the latter. He invests in stocks as sure to pay a dividend as that seed-time and harvest will continue.

Most farmers are ready at all times to purchase adjoining land, and run into debt for it, even when in possession of more than they can profitably manage. It is good, say they, for what it costs, and may be worth more; therefore it is a safe investment. The same reasoning applies with greater force to expenditures for the improvement of lands already possessed.

When the spirit of enlargement, now so rife among farmers, shall give place to a healthier and more rational spirit—a spirit of improvement—a new era in the history of American agriculture will commence.

I would by no means recommend needless expenditures, or that farmers should recklessly involve themselves in debt even for valuable improvements; but that rather than suffer from short crops and from waste lands, as thousands are now doing, they should do what is done in other departments of business—use their credit for the improvement of their fortunes.

If they need more help, obtain it. If improved implements are necessary to save labor and do the work better, let them be procured. If an orchard is needed, let the trees be obtained and planted; and let it be done thoroughly, even if it be a busy season.

Let the best of stock be procured, and kept in good condition. No farmer can afford to keep poor stock. In short, let the farmer keep pace with the spirit of the age. Progress is the order of the day.

In no department of industry is improvement more imperiously demanded than in agriculture. He who plods along in the old track, annually *skinning* his lands without ever making them any adequate return, will be *starved* into the reflection that agriculture is not a paying business. While he who reads agricultural papers, and puts in practice the information he obtains; whose constant aim is the betterment of his farm, the improvement of his stock, and the increase of his products; and who, to accomplish this, judiciously uses such capital as he can command, whether his own or that of his neighbor, will find agriculture a lucrative and a most pleasant employment.

#### POPULATION AND INDUSTRY.

WE find an elaborate article (*as usual*) in the last number of *De Bow's Review*, upon the subject of "Southern Population—its Destiny." We extract from it the following paragraphs:

South Carolina contains about 21,000,000 acres, of which but 1,500,000, or thereabouts, are cultivated. Can it be possible that only *one twelfth* of this State is capable of profitable cultivation? Surely not. One fourth at least, we should think, might be made to yield an abundant harvest. This would be about 4,500,000 acres, three times the amount now cultivated. What population could this support? We presume at least three times the present population; and probably much more, as we will endeavor to show.

In 1840 the population of the State was 594,398, of which 198,363, almost exactly one third, were employed in agriculture. Now, if we suppose that three times as much soil would require three times as many people to cultivate it, 4,500,000 acres would require 595,089. But would not this great increase in agriculture be necessarily accompanied by a still *greater* increase of employment in other pursuits? It certainly would. Those States which have introduced manufactures, extended their commerce, and diversified employment generally, exhibit a much smaller proportion of their people employed in agriculture than South Carolina, and it is fairly to be supposed that as the South becomes more populous the proportion of agriculturists to the whole populace must decrease. Among the Southern States, Maryland employs about one seventh of her people in agriculture; Virginia, Louisiana, and Missouri, about one fourth; and among the Northern States, Massachusetts employs one eighth; Pennsylvania, one seventh; Connecticut, New-Jersey, and Ohio, one sixth; and New-York, one fifth. Now, when the Southern population has increased so much as to have reclaimed nearly all the land

which can be profitably cultivated, we take it for granted, the diversity of industrial pursuits will be as great *here* as it *now* is in Ohio, New-Jersey, New-York, or Maryland; and assume that *one fifth* of the people will be enough to cultivate the land for the sustenance of themselves and the other four fifths. This assumption may not reasonably be objected to; for by the census of 1840, it appears that *then* only 1,982,671 out of 7,333,637, or very little more than one fourth of the entire Southern population, was employed in agriculture. If, then, 4,500,000 acres of land in South Carolina will require 595,089 people to cultivate them, and *only* one fifth of the population of this State will be sufficient to produce subsistence for the whole, it follows that 2,975,445 people will be comfortably sustained; and this would result in the proportion of about 90 inhabitants per mile throughout the State.

If the same may be conjectured of the whole South, it would appear that 144,000,000 acres, one fourth of the South, would require 19,042,848 people to cultivate them; and the whole population, being five times as much, would amount to 95,214,240, or 105 per square mile. But since this population will be comfortably supported, for we have supposed that subsistence will increase apace with capital, it cannot be urged that there will be a redundancy. Therefore, if the Southern population continues for one hundred years to increase at its present rate, we need not apprehend redundancy.

#### PHYSICAL CONDITION OF SOILS.

It was stated in our last number, in an article on Soils, that it is not enough to have all the needful elements present. They must also be present in a form available to the plant which they support. We have had our attention drawn to a remarkable statement in relation to this subject, in a recent article in *Silliman's Journal*. The writer says, that "the soils in Ohio, which yield from seventy to eighty bushels of corn to the acre, are no better, so far as their mineral composition is concerned, than many of the Massachusetts soils which have a reputation for sterility." He afterwards remarks that this difference can only be occasioned by the difference in their attributes, "and these are the amount and condition of organic matter contained in the soils, and the fineness of their elementary particles." (P. 18.) The remedy for this is obvious. For the former, muck and other kinds of organic manures, and for the latter, *cultivation*. Plough, *plough*, PLOUGH, should vibrate on every farmer's ear, until he has evidence that the wants of the soil have been thoroughly met, by the liberal and ready returns which it makes for the seed cast into it and the labor bestowed upon it.

Nor is this all. Land may be turned up almost without cessation, in some soils and especially at some seasons, without materially changing its "attributes." To accomplish this, the action of the frost is often very useful, while the most thorough process will also include a judicious choice of manures, applying such as are best adapted to produce a chemical as well as physical change in the soil. For example: it is a common practice in some parts of England, to carry out large quantities of chalk and to leave it exposed to the action of the rain and frost, by which means it becomes thoroughly pulverized and fitted for vigorous action in the soil. But on the other hand, the addition of a spoonful of gypsum to a hill of corn can have but little effect in producing any change in the physical condition of the soil generally. If applied



at all, with this view, the mixture should be by particles and not by spoonfuls. It must be scattered, not placed.

So, too, manures which will produce an efficient chemical action, will sometimes be found most useful with reference to the improvement of the texture of a soil. Thus, when the sulphate of iron abounds in the form of coarse fragments, as it often does, it may be gradually changed by the action of lime into gypsum, (sulphate of lime,) and the oxide (rust) of iron, which will improve the soil both in its chemical and its physical properties. Thus the carbonates, sulphates, &c., when applied to soils that will give most occasion to the action of "elective affinity," as chemists term the spontaneous *interchange of elements*—not merely yielding up their acids or their bases to the vital action of the plant, but breaking up the original combinations and forming new ones in the soil—may secure the most efficient action in this way, and be productive of great good, while no useful elements are actually added to the soil. We do not present this point as of prominent importance, for we suppose it is not always practicable to convert our farms so thoroughly into chemists' laboratories. But still the point may sometimes be worth considering. There is, for instance, a ready process, comparatively, for reducing the common rock *feldspar* into available soil, and perhaps this may be done by bringing an acid into contact with its potash and alumina. Its *silex* would thereby become friable, or perhaps would assume the form of dust; or if it assumed a honeycomb condition, it might be bodily removed, to the great benefit of the land. So, too, in those sections where marls abound, as they chiefly consist oftentimes of disintegrated shells, a similar process may be highly useful. But this might be more properly done in a compost heap, before they are applied to the land.

## WOMAN.

IN all countries that are exclusively agricultural, women are little better than slaves. They must either remain idle, or they must labor in the field. With the growth of manufactures, they are enabled to obtain employment suited for their strength, and thousands achieve independence, as is daily seen to be the case throughout the Eastern States. Under the tariff of 1842 there was a daily increasing demand for the services of the weaker sex, and a daily increasing tendency to the diminution of its dependence on the stronger one, with corresponding tendency towards that equality of rights which is needed for the maintenance of morality in their relations with each other. Under the tariff of 1846 thousands and tens of thousands of females have been deprived of the power of supporting themselves, and thousands are being driven to support themselves by immoral means, because of their daily increasing dependence of condition. The effect of this is well exhibited in the following extract, which we beg to commend to the consideration of such of our female readers as may yet be disposed to believe that benefit to the community can result from the maintenance of a system which closes our mills and furnaces, and drives our men to the West, while depriving our females of employment and leaving them exposed to the wiles of the seducer:

"THE CONTRAST—The *New-Hampshire Oasis*, after stating that Kate V. Pool plead guilty and was sentenced to State prison for life for the murder of her child, draws the following contrast between her and her seducer:

"*She goes to prison for life for an act committed when despair had overthrown reason, conscience, and maternal affection goes heroically, with no lies in her mouth, willing to*

expiate her sin, and suffer her heavy sorrow alone, not daring again to ask human sympathy, for it was denied her in bitter anguish, but hoping for the mercy of God! *He*, in the eye of Heaven *more* guilty, is basking in the smiles of social circles, and possibly the welcome and accepted gallant of a score of fastidious belles who quarrel for the honor of his attentions.

"This is the verdict of society the world over. Poor-houses, prisons, and grave-yards are peopled with the victims of those who hold their heads high among their fellows. The haunts of poverty and crime are thronged with the once lovely, while their betrayer move in honored circles. Long arrears these last will have to settle, when the inequality of this world's punishments shall be righted in the future world."

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

### WHEAT—THE CHEAPEST MODE OF RAISING IT.

FOR the last twelve or fifteen years it has been a pretty generally received notion among farmers in New-York, that wheat could not be profitably raised without summer-fallowing. But a different notion has begun to prevail of late, and many intelligent farmers now hold, and perhaps the great body of them, that the cheapest way we can raise wheat is not to summer-fallow—is not to expose the naked soil to the rays of the sun during the summer months, when it is hot enough to dry the earth, so that it will be more like ashes than any thing else. Good wheat has been and can be raised by summer-fallowing; but every body, who has had much experience in wheat raising must know that ploughing and harrowing a piece of land several times in one summer is attended with a good deal of expense, and therefore is not as profitable as ploughing thoroughly once, and cultivating in a corresponding manner.

The great objection that I always have had to summer-fallowing is, that the soil is laid open to the action of the sun's rays, and thus it is that so much of the real strength of the land evaporates, and the farmer-loses so many of the essential gases. Where the soil is exposed to the sun, large quantities of ammonia are evolved, and where this takes place we lose the very substance which causes our land to ferment and become lively. It ought to be the aim of the agriculturist to retain as much ammonia in his soil as possible, for it seems to be one of the most important substances in nature. I do not hold that there is no evolution of ammoniacal gas where the soil is not ploughed at all; but, on the contrary, that substances will evaporate from all lands, whether ploughed or not. But is it not clear that a quantity of mortar, for instance, will not dry up as soon when it is covered with straw as when exposed to the open air? The straw, or any thing of a similar nature, tends to keep down the moisture and other gaseous substances, and in this manner the mortar is retained in a damp state. So we may say of land. Where we let it remain for some time in a swarded condition, (if I have a right to use the term *swarded*,) it apparently is much more lively and moist than though we had ploughed it several times during the hot season of the year. Then, if we would be successful in raising wheat, if we would make the wheat-growing business profitable, let us keep our lands covered with vegetable matter, either clover or something else, in order that the moisture and gases may be kept down, and thus make the soil vigorous and in the right condition to receive seed.

The cheapest way to raise wheat, in my estimation, is to plough only once, and then plough thoroughly and harrow or cultivate accordingly. This very season we have a piece of wheat which was put in, as the saying is, in the

old-fashioned way. We ploughed several times, and went over with the drag and cultivator in the usual manner, then sowed, and the wheat now stands in the field, (cut, by the way,) no better, if it is as good, as that which we sowed after spring grain in another field with once ploughing. We have had the best success, securing the best crops with the least trouble, by sowing wheat after barley. The barley comes off early, and gives us a fine chance for ploughing our ground deep, and sowing our wheat in good season. We usually sow from the 10th to the 15th of September; and for our seed, we use the Garden or the Club wheat, sowing, as near as may be, two bushels to the acre. When we get twenty or twenty-five bushels of wheat to the acre, with once ploughing, and with as little trouble as we usually have in raising wheat, we think that the wheat-raising business is profitable. All of the fine manure which can be collected on the farm we strew over the surface of the field, after ploughing, and just before sowing. In this way the wheat almost immediately receives the benefit of its application. More anon.

*Baldwinsville, July, 1852.*

W. TAPPAN.

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

#### HOW THE WATER BOILED AWAY FROM THE POTATOES.

BY J. B. NEWMAN, M.D.

I AM residing for the summer with my family in a retired and very romantic place in Connecticut, seven miles from a railroad dépôt, and some thirty in all from New-York city. The distance from the dépôt makes the weather an object of some consideration in visiting the city. Yesterday was a fine clear day, pleasant for either walking or riding, there being sufficient breeze to moderate to comfort the heat of the sun. Quite exhilarated by these circumstances, I declared at dinner my determination to go early the next morning to New-York, as it was just the weather for travelling.

"You cannot go to-morrow," said my aunt gravely; "it is going to rain."

"I see no signs of it," said my wife; "wind like this often continues for days together without any storm."

"I do not judge from the wind, but from a sign that never fails, and that is, the boiling entirely away of the water from the potatoes this morning."

"Did you put in as much water as usual?"

"About the same. You laugh, I see; but it will rain to-morrow in spite of your laughing."

Incredulity did make us merry, and each one began to recount tales of country superstitions generally. In the course of the conversation, some one told a story of an English gentleman, well known in the scientific world, who, while on a visit to a friend, started one morning on a hunting expedition, but missed his way, and inquired of a lad tending sheep to direct him. The boy showed the desired path, but told him it would rain shortly, and he had better return home as soon as possible. The gentleman, observing no signs of the predicted storm, ridiculed the boy's notions, and proceeded. In the course of two hours, however, he was retracing his steps completely drenched, and found the boy eating his dinner in a little but near where he had left him. Curiosity as to the source of the knowledge which he had found thus verified prevailed over his desire for speedy shelter, and he stopped his horse, and offered the boy a guinea to enlighten him on this point. The boy took the guinea, and pointed to the closed flowers of the Scarlet Pimpernel, some plants of which happened to be growing near the hut. The gentleman himself had written



about this very fact, mentioning that its open buds betokened fair weather and its closed flowers abundance of rain, and hence its title to its common name of Shepherd's Weather-Glass. Fully satisfied, he rode on.

We all allowed that there was some sense in this sign, and that it could be ascribed to the instinct with which nature endowed her children, to guard them from injury.

"But are there not," said my aunt, "some contrivances made to foretell rain? I have seen a long glass tube filled with quicksilver, to which there was a dial-plate attached, and the rise and fall of the quicksilver regulated the hand on the dial, so that changes of weather could be told. I do not see why the boiling away of the water from the potatoes may not be as good a sign as the rise and fall of the quicksilver."

Again there was a laugh at the comparison of the water around the potatoes with the handsomely-finished and expensive philosophical instrument termed a barometer.

The weather continued as pleasant as before, so last evening I packed up my carpet-bag, and made the necessary preparations, requesting them to wake me at five o'clock, and have the carriage ready in time to convey me to the dépôt.

I awoke this morning, and all was still in the house. Quite pleased to be beforehand with them, I looked at my watch, and with some diffulty, on account of the dim light, found it to be fifteen minutes after six. Much surprised at not having been called, I jumped up, and threw open one of the blinds of the window, but directly closed it again, as a driving rain poured in. The reason why I had been permitted to sleep on was evident enough. I dressed, and went down to the breakfast-table, where sat Aunt H. enjoying her triumph.

On my return to my study, forced as it were by circumstances to do so, I began to reflect on the boiling away of the water from the potatoes, and tried to discover whether the ensuing rain was mere coincidence, or due in some way to cause and effect; whether in reality connected with it or not. The result of my deliberations and subsequent conviction of the connection of the phenomenon with rain I will now proceed to give.

The pressure of the atmosphere, which is about fifteen pounds to the square inch, forces many substances to retain the liquid condition that would, were that pressure removed, assume the form of gases. Of this, ether is an example.

Chemistry assumes that all matter is made up of exceedingly small particles called atoms, and that around every atom there are two atmospheres, the inner one of attraction and the outer one of repulsion. Bodies exist in three forms, as solids, liquids, and gases. When the attractive force predominates, the form is a solid; when the attractive and repulsive forces are balanced, the form is a liquid; and when the repulsive force predominates, the form is a gas. Caloric, or the principle of heat, is considered by many, and perhaps rightly so, as synonymous with the repulsive force. Hence an increase of heat will make the solid become fluid, and the fluid become gaseous. Thus ice changes to water, and water to steam.

The atmosphere, by its pressure, assists the attractive force in the same manner that heat assists the repulsive, the pressure and heat, of course, acting in opposite ways. Whatever, then, would lessen the amount of pressure, would enable the heat to act more powerfully. A certain amount of heat, under the ordinary pressure of the atmosphere, is required to convert water into steam. The less the pressure, the less the heat required; but if the same amount of heat is applied to the same quantity of water, under such cir-

cumstances, the more rapidly will it be evaporated, or, in other words, boiled away. It is evident enough, then, that if the atmospheric pressure is less at times preceding rain, the water will boil away more rapidly than usual from the potatoes.

I was frequently puzzled in my boyish days by the assertion, in scientific books, that the air is lighter in rainy than it is in dry weather. It seemed to me as if the air at such times should be heavier, as, in addition to its own substance, it holds suspended abundance of heavy clouds, which must surely increase its weight. For many years the problem remained unsolved in my own mind, as it is yet unsolved, perhaps, in the minds of many who read this. At last the thought occurred to me, that as the weight of the air *per se* must remain the same at all times, taking it as a whole, did it not really contain more moisture in solution in clear than in rainy weather? And such is really the fact. As water, by the addition of salt, can be made dense enough to float an egg, and as the more the brine is diluted with fresh water, the deeper will the egg sink in it; so is the air, by holding water in solution, rendered dense enough to float clouds at a great height, and the greater the amount of water it loses, the lower do the clouds fall. This very dryness of the air is, in fact, one of the many circumstances that cause rain.

The air then is lighter, the pressure consequently less, and the unusually rapid evaporation of water from the potato-pot is as good and trustworthy a sign of approaching rain as the falling of the mercury in the barometer; and thus the cook in the kitchen may foretell as confidently as the natural philosopher in his cabinet. And yet more, for nature is bountiful: even where the apparatus of the kitchen and the cabinet are denied, she furnishes, without expense to her faithful observers, means even more certain; for the shepherd boy has an unerring guide in the Scarlet Pimpernel.

*Stanwich, Ct., August 3d, 1852.*

#### WOOL AND STOCK INTERESTS OF ILLINOIS.

A WRITER in the *Wool Grower and Stock Register* says:

No State in the Union is better adapted to pasturage, wool and stock growing, than Illinois. For eight months in the year its prairies are covered with wild grasses, which, for nutritious qualities, will favorably compare with any in the world. What, then, deters our prairies from being covered with flocks and herds more numerous than those of the patriarchs of olden time, when the expense thereof is almost nothing, and the return sure and profitable? The mass of the people are blinded to their true interests, and prefer "darkness rather than light." This is evident when we consider the efforts which have been made to convince the public mind of the futility of its present mode of farming, and the change desirable for it to make. Formerly prairie wolves were "death on sheep," but now the wolf, with his liege lord, the Indian, has retired beyond the pale of civilization. Formerly the distance to market was urged as an objection to the raising of cattle and hogs, and the growing of wool, but now railroads intersect the State, and New-York—the first market in America—is within four days' journey. Fat cattle and swine can be driven to the various depots, and transported there in droves; while wool, at home or abroad, finds a ready market at a large cash price.

We trust, then, that, in view of these facts, our citizens will commence the

raising of young cattle on a large scale, and, while realizing the beauties and profits of a pastoral life, develop the resources and increase the exports of the State. Such a prospect, so emblematical of peace and plenty, may we soon see. The "WOOL GROWER" has long exerted a beneficial influence on the agricultural mind of this State, and we trust that under the new and favorable auspices through which it is hereafter to be issued, it will gain such a circulation as will best promote the interests of Illinois and all other stock-growing sections of the Union, and secure to its publisher and editors an ample compensation.

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

### THE MINERALS OF LAMOILLE COUNTY, VT.

#### No. III.

THE minerals of Lamoille county, in place, are mostly talcose and mica slate. Of these, there are many varieties throughout the county. Some localities abound more in silex and quartz; these are hard and refractory, while others are soft and easily wrought.

The hardest rocks present many fissures filled with milky quartz, carrying conviction that it was thrown out in a fluid state.

The rocks in place are all more or less stratified, and in all the towns in the county, stone is readily procured for building purposes. The anticlinal line of the strata is principally from north to south; hence the dip is east and west. In the up-heaving of the mountains and hills, the strata are slightly fractured; consequently there is not much *debris* at their base.

The diluvial boulders are not very abundant or large, but the variety is considerable; many of them must have escaped from the Queen's dominions, probably passed the line duty free, and now remain in quarantine. There are small boulders of hornblend, argillite, breccia, and a species of yellow sandstone; and there being none of those rocks in place north of us in Vermont, it is evident these came from Canada. We have granite boulders, the feldspar of which is flesh color, the original locality of which is unknown.

There are numerous boulders of serpentine in the north part of the county, which, when sawn and polished, is a most beautiful stone, and by the ancients was called *verd antique*. It will reflect any image like a mirror. With this is found the *Asbestos*, or as some writers term it *Amianthus*, (*cotton stone*), which may be spun into yarn, and woven or knit. The ancients, from a variety of this mineral, manufactured a species of cloth famous for its being incombustible, in which they wrapped the bodies of their dead heroes that were to be burned; this would prevent the ashes of the wood from incorporating with those of the body. Many little articles are manufactured from it as curiosities, such as purses and gloves, which, when thrown in the fire, come out just as they went in, minus the filth or dirt.

This stone is a beautiful variegated green. It is very abundant in Lowell and several other towns north of us. The boulders from Lowell are large; in Eden, the first town south, not so large or abundant; in Hyde Park, the second town south, smaller; and more sparse in Morristown, still farther south. This stone is manufactured in Cavendish and Bethel, Vt. It is used for jambs, mantel-pieces, table and stand tops, &c.

A few boulders of dark stone, which our State Geologists denominated



secondary greenstone, are scattered over the county, and a few containing epidote, and some of nodular granite. The last, from Craftsbury, where it is found in place, is a curiosity. Some call it *plum-pudding stone*, from its resemblance to a raisin pudding; the nodules are black mica, some round, from one half to one inch in diameter, others in the shape and of the size of a butternut.

Drift furrows or scratches are abundant on all the rocks in place that have been recently uncovered, and they all have a southerly direction. I have recently examined some fair specimens traversing south,  $15^{\circ}$  east, some more east, while others more westerly, as the elevations would direct the diluvial current to the right or left.

Our nights are cool, and English grain is of good quality. Potatoes are not as yet affected with the rust; the crop looks more promising than for the past six years. Corn is backward, but looks well; grass about two thirds of a crop, the quality excellent. The early drought injured vegetation much, but it appears there will be a sufficiency for man and beast, oats being abundant.

ARIEL HUNTON.

Hyde Park, Lamoille County, Vt.

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FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

#### CULTURE OF COTTON.

MESSRS. EDITORS:—Your letter of the 13th ult. came duly to hand, accompanied with the July number of your interesting and valuable periodical. Pressing engagements and bad health have prevented an earlier reply.

I will endeavor to send you a few numbers "on the culture of cotton, &c., which may be of use to the inexperienced, or to those who may be disposed to profit by the experience of others."

The seed come first in order, and will form the subject of our first number.

Of these there are many varieties, more or less approved according to the circumstances of soil, seasons, and climate. Most of them are derived from the Petit Gulf, as that was a derivation of the old Mexican, which last was substituted for the green seed some twenty-five or more years ago.

These varieties are known as the Banana, the Pomegranate, the Sugar-loaf, the Tavoo, Helen, Hunt, Multibole, and Vicks hundred seed. Besides these, there is the Prout, Ellison, and Harris or royal cluster, which are said to be descended from the green seed, and which are all probably the same seed under different names. When the lands were fresh, the climate less variable, and the boll-worm less destructive than at present, the Petit Gulf seed did remarkably well. But for the last ten years it has been found too weedy, leaves and limbs too large, spaces between joints or bolls too long, and requiring too much space and time for its growth. Hence, in selecting new varieties of seed, the great objects have been and still are to get plants which will mature early and bear crowding in the drill, or produce the largest number of bolls in the smallest space. Fortunately, these two valuable properties are generally united, as the qualities favorable to early maturity, such as short limbs and joints, small leaves, short stem, adapt it also to close planting. The spaces between drills on good soils were formerly five and six feet, and between the stalks and the drills eighteen and twenty-four inches. The former is now reduced to three and a half to four feet, and the latter to from

nine to twelve inches. The great importance of early maturity arises from the fact that whenever the weather is favorable for the boll-worm, it attacks the forms, blooms and small bolls from the 1st to the 20th August; and if there is not then a good supply of grown bolls, the chance for a crop is a slim one. Two years out of three the cotton crop is subject to this disaster, to a greater or less extent. The boll-worm is emphatically the great enemy to the crop, and is more destructive than all other causes combined.

The Helen, Sugar-loaf, Pomegranate, and Hunt, are all very popular seed, and for ordinary upland soils may do as well as any other. But for deep, rich soils, my experience and observation are decidedly in favor of the Harris or royal cluster. It has a small weed, limbs numerous and short, joints the same, leaves small, and is a prolific bearer.

There are several modes of improving seed, and keeping up a pure stock. One is to make trusty hands go in advance of the other pickers, and select choice bolls from choice stalks, or stalks having desirable peculiarities. Another mode is to select favorite seed from the seed-pile. These are both very practicable. It is believed that the best time to save seed is in October, when the middle crop of bolls is matured. I have made it an object the present year to plant two years old seed by way of experiment, believing that they might run more to fruit by age, as some other vegetables do. I have also planted a new variety of seed, procured last spring from Texas, and commended very highly in the Galveston and New-Orleans papers. It is called the Dean cotton. From its present appearance I suspect it to be too nearly akin to the Mastodon, now obsolete; if not the same, to prove valuable. I was assured, however, a few days ago, by a gentleman of discernment from Texas, that he knew the Dean cotton to be a different variety from the Mastodon.

*Greensboro, Ala., Aug. 11, 1851.*

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FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

#### LAND IN NEW-ENGLAND—FELDSPAR.

MESSRS. EDITORS:—New-England, you are well aware, has a hard and sterile soil, and yet we profess to be somewhat a farming people. If we cannot boast of so rich a soil as they have at the *West*, yet we can boast of our energy and perseverance. Read the statistics of the Agricultural Convention at *Washington*, and there you find us ready for any improvement, and all improvements, in agriculture. The soils and production of New-England are various. Take, for instance, the Connecticut Valley, embracing a large extent of country in four of the New-England States. This valley has a deep, rich soil, adapted to the culture of Broom Corn, Tobacco, Potatoes, and Grass. Then there are the high lands, with a different soil, adapted to Indian Corn, Rye, Buckwheat, Grass, &c. This land is constantly enriching itself by the decomposition of *Feldspar* and other mineral substances. We have large quantities of *Feldspar* distributed all over New-England, and the time is not far distant, in my humble opinion, when it will be used as a manure, like plaster. But though thus hard and sterile, by patience, perseverance, and industry, many portions of New-England have been converted into a garden, beautiful and luxuriant. Our rocks have been considered, in times past, a great inconvenience to farmers; but what could we do without them? We want them for walls, cellars, factories, bridges, &c.; and when our timber is gone, then we

shall find them a great blessing. Farmers are beginning to awake to the subject of agriculture in New-England, and a mighty revolution has commenced that must result in great good to all in the East and West, North and South. Science, that great boon to man, must work this mighty revolution, and when our legislators shall appoint scientific men to investigate our soils, we may expect a new era in the department of scientific agriculture.

New-Bedford, July 19, 1852.

J. ROBINSON.

FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

### IMPROVEMENTS IN THE WEST.

INDEPENDENCE, MISSOURI, July 5th, 1852.

BEING now at leisure, I send you some remarks, drawn from my notes by the way, on the character of the Missouri, which if you think worthy of insertion in your miscellany, they are at your service. This great river is unequalled in the world in extent and volume of water, being upwards of three thousand miles long, (I except the Amazon,) excessively crooked, muddy, sweet to drink, indeed delicious. It is used as drinking water on the Illinois, the upper and lower Mississippi, in St. Louis, and other river towns, in preference to well water, when *ice* can be obtained, and is exceedingly wholesome. In its healthy qualities and muddiness, it resembles the Jordan of Palestine. Its channel and margin, and numerous bluffs, are perfectly monotonous. It is continually running near to one bluff, sweeping the sandy soil away to its base, and lodging it on the other side; anon, the next freshet the current shifts, and throws it back again to the side from which it originally had taken the same alluvion. He who is a good pilot this season cannot judge where the channel will be the next. It follows that its navigation cannot be improved by any possible means within the power of man; it must ever be dangerous. I do not believe that it is more than a mile between the bluff banks on an average, for the five hundred miles next above St. Louis. Did this river run in a straight channel, its rapidity would be such that no boat could stem it. As it is, the crooked places are very much like wing-dams. They occur so frequently, that the current is much retarded, and the boat has, in most cases, to cross from one side to the other. It is also important frequently to use the *lead*; but this is of little avail in descending the river. There are not three towns on the river to this place from St. Louis that are visible; they are all on the bluffs, which are highest next the river, and conceal them. There are hamlets, or landing-places, for the convenience of wooding, and for taking in and putting off passengers and freight. I am very much inclined to believe that when the railroads recently authorized by law shall be in operation, (one of which is to run from St. Louis to this city, and the other from Hannibal on the Mississippi to St. Joseph on the Missouri, north of the river, and both nearly parallel with it,) the navigation of the river will be very trifling. In going up, the greatest speed cannot average over 7 miles per hour, which would require 72 hours; or, if they lie by at night, which they often do, we put it at 96 hours, or four days. Coming down, they should *always* lie by at night. The down-trip we put at 14 miles per hour, which would be 36 hours' daylight, or three days. Now, I will estimate the southern road at 300 miles. I am credibly informed that from Toledo on Lake Erie, to Chicago on Michigan, is 350 miles. This is run in 16 hours, that is, 22 miles per hour, about one third of the time of the up-trip on the river-boat, taking the shortest time,



72 hours, and as three to two of the time of the down-trip, 36 hours. I travelled on one of the best steamboats (the Banner State) on the river; it sailed well and safely, its uniform speed being 6 miles per hour. I have been informed that already some New-York capitalists have proposed to build and finish the South railroad from St. Louis to Independence in three years. Men of capital do not expend it often without an object in view, which will return a handsome dividend upon *that* capital.

The features of the country on both sides of the river through which those roads shall run are as rich as any part of the State; and, as the State will be nearly divided into three equal parts, every part of the State will be brought nearer to market; and I do not see why it might not become a great manufacturing State. Iron and lead are found in it sufficient to supply the world. There is a solid mountain of iron ore, of what dimensions I know not, near the line of the Southern railroad, and yet we *will import our rails from Wales*.

I have a few remarks to make on the Nebraska region, and that west to the Rocky Mountains. This region, embracing a territory about equal in extent to the State of Missouri, say 60,000 square miles, more or less, has passing through it a strip of arid land, longitudinally from north to south, which is in breadth 30 miles and in length 150 miles, or 4,500 square miles. This arid plain is not sand, nor is it rocky. My information is from a gentleman of veracity who has crossed it at various points, (Col. William Gilpin,) who says it is crossed by the Kansas, the Platte or Nebraska, and their branches, which are rapid waters, rising in the Rocky Mountains; and when they reach the great plateau, they spread out from one to three or four miles wide, running directly east across the plains into the Missouri river. There seems to be an evaporation from the waters of those rivers, which produces abundance of pasture on the great plains to feed millions of buffaloes. Even on the *arid* plain spoken of, there is a grass which grows about three or four inches long, and which curls down in a kind of mat, like wool, that retains its nourishing qualities during the winter season. The great destitution of timber in Nebraska is the greatest objection to this territory.

Another subject of great importance I wish to advert to briefly, with a wish to induce discussion on it. Every day opens up with more and more grandeur the great resources of the West. The subject has occupied my mind since I read the law of Congress granting lands to Missouri, to enable her to make two railroads through the State from east to west, one on each side of the river. The engineers are already at work on the west end of the South road. Four thousand rails have already arrived at New-Orleans, for the *Pacific* road, FROM WALES! Our calculation is, that these roads will be made in three years. Their united length will be about 500 miles. Now, Messrs. Editors, what is to be the next step *west*? It will be to converge to a point, some fifty or a hundred miles within the limits of Nebraska, those Missouri railroads, and from that point, directly to the *South Pass*, continue them, which is a little west of north-west, and in a direct line almost to the mouth of Columbia river. Ten years will not pass, if the United States be true to her own interests, before this route will be a railroad; and through this road will the East India, and China, and Japan trade pass to these United States. From New-York to Oregon City would perhaps be 3,000 miles on a railroad. Allowing for mishaps, the trip might be made in ten days out and ten days in, that is, in twenty days. The voyage from Oregon to the East could be made perhaps uniformly in thirty days. As the trade *now* goes from our Eastern cities to the East Indies and China, it is thus *twenty* times the

whole time westward by Oregon would be. Now, if all these things are so, then why not obtain an appropriation of \$1,000,000 from the Government *annually* to make the railroad east from the mouth of Columbia to the South Pass, meeting the road of which we have spoken above?

Do you think the project of this railroad from St. Louis to the Pacific is *more* improbable than was De Witt Clinton's project for connecting the navigation of the lakes with that of tide-water in the North River? Mr. Jefferson thought he was a hundred years *ahead* of the age, but afterwards acknowledged that it was he *himself* that was a hundred years *behind* the times, when the same De Witt Clinton informed him that the canal was completed. I have described the above project with so much brevity, that I fear you will not willingly give it an insertion in your excellent work. One more idea. This State of Missouri is, I believe, the largest State in area in the Union, except Texas and California. It is unquestionably the richest in soil and minerals. St. Louis ranks *sixth* in commerce, and of course in amount of customs collected, in these United States, though upwards of a thousand miles from tide-water. The voyage from New-York, by the way of St. Louis and Oregon, to China, is about 10,000 miles. It could be performed *ordinarily* in ten months. From New-York, around Cape of Good Hope or Cape Horn, costs between two and three years. I must stop for obvious reasons.

J. C. R.

## CORN CULTURE.

BY L. DURAND.

*To the Editors of the Plough, the Loom, and the Anvil :*

IN the July number of *The Plough, the Loom, and the Anvil*, is an inquiry by Mr. Bagby, of Marshall county, Miss., as to my mode of cutting up and curing corn. As to the time of cutting, much depends on the season, weather, &c. Should the corn begin to suffer from drought, or if there is an indication of an early frost, it may be cut up and stacked as soon as the kernel begins to glaze in the centre; but in other cases it may stand till the corn is mostly hardened, if the stalks continue green. As to "pulling fodder," we presume Mr. Bagby means the stripping off the corn blades or leaves, and tying them up in bundles for winter fodder. This plan is not practised in any of the Northern States by farmers, to my knowledge; and I think not in any of the States bordering on Mason and Dixon's line. But in the more Southern States this plan is practised to a large extent by the farmers and planters. Where the corn is cut up and stacked, we would not advise the "pulling of the blades" at all, but cut all up together, and put it in stacks. Take five rows through your corn-field, making your stack on the middle row, leaving one hill standing, around which to form the stack, then cut and gather to the stack, never laying the corn down at all to bind into bundles. In forming the stack, be careful to set the corn on all sides, so that when the stack is done, it will form as nearly a "sugar-loaf" as you can make it. After the stack is made of sufficient size, take a band of straw, turn down the tops, and bind around it, and it is done. Some put an extra band around the centre of the stack, but this is not necessary when the corn is well set up, as we have directed. After a week's time, the stacks will have become set together, and then no storm short of a tornado will

upset them. As to the time of cutting up, all depends on location, climate, circumstances, &c. In this climate, our corn will be ready from the 10th to the 20th of September; but in your State, it may stand from a month to six weeks later before it is cut. However, be sure to cut the corn before it begins to dry up or the leaves to become frosted. We generally make large-sized stacks, as they stand up better, and the storms do not beat into them as much as in smaller ones, although it will take a longer time for them to be thoroughly cured. The stacks may stand out in the field from four to six weeks, and then the corn may be husked out in pleasant weather, and the stalks bound in bundles; and when they are well cured, they should be carted to the barn or stack-yard for winter use. In husking out the corn, be careful to save all the husks you can on the stalk, as these are the best part of the fodder. For a tool to cut up corn with, we have formerly used a knife made from a grass scythe. Take a scythe which has been laid by for mowing, cut off about twenty inches of the point, make a shank of five or six inches, which should be put into a good handle, then put on the edge, and your knife is ready. Now they sell a "corn knife" at the agricultural stores for 37 or 50 cents, which is just the thing for this purpose. You can take off a hill at a clip with all ease. One cause of the objections against cutting up corn made at the South probably is, that they grow the heavy and tall kinds of corn. This might make it difficult to manage the crop in the way I have named. A better plan, I think, would be for them to plant some of our Northern kinds, which grow from six to seven feet high. And while I think that they would get quite as much or more corn to the acre, the fodder and forage would be worth double that of their tall and large varieties. I think that where good English hay is worth ten dollars the ton, corn fodder, saved in good order as I have named, is worth from six to seven dollars the ton for feeding neat cattle. A good straw and stalk-cutter in the barn will soon reduce this fodder to such a state that, with a little sprinkling of provender, it will make the best of feed for milch cows. For several years past, I have been in the habit of saving for seed-corn, when I husk out, those stalks which grow two or more ears. The top ear is generally the best filled out, but if they are both good, we save both. Mr. Bagby will find his crop increased in quality, probably, by trying this plan.

*Derby Line, July 21, 1852.*

#### TOADS USEFUL.

A WRITER in the *Pennsylvania Farm Journal* gives us an anecdote showing the truth of the statement so often published, and we suppose now generally understood, that the toad is a useful animal *about house*. He says:

I have ever been the friend of toads, and greatly regret the cruelty frequently manifested towards them by unthinking persons. My garden abounds with them, and a more sociable set of fellows I have rarely met with. Whenever I commence spading, the newly spaded bed is sure to be surrounded with them, watching quietly but eagerly for any grub or worm that may chance to be thrown up.

Last summer, whilst spading some ground which abounded in the large white grubs usually found in the vicinity of clover stalks, I observed a middling sized toad sitting near, quietly watching my operations. Presently one of the grubs was turned up, and in order to test his fondness for such food, I



threw it before him. In an instant it was swallowed. As he appeared to relish the morsel, I gave him another and another, until finally he made away with *seven* of them, when he retired. Next day he returned, and dispatched six more of the grubs, which I gave him. I mention these little facts merely for the purpose of showing how large a number of troublesome worms and insects a single toad will destroy.

As some of your readers may have a cucumber bed which the striped bug is destroying, permit me to suggest a remedy for these pests, which I have found most effectual. Between the hills, lay pieces of board sufficiently raised from the ground to enable the toads to conceal themselves under them during the day, and my word for it the bugs will speedily disappear. Whether they are eaten by the toads, or whether their presence is so unpleasant as to drive them away, I cannot say, but presume the toads destroy them.

#### HORTICULTURE.

THE QUINCE has been too long the despised occupant of the neglected and obscure parts of the garden, and has generally been supposed to require a wet soil, and despite the old prejudices, it will flourish on a greater variety of soils than any other fruit, from the moist muck swamp to the gravel ridge. They require to be kept free from grass and weeds, and thoroughly manured, being rank feeders. They may be propagated from seed, layers, and cuttings, and also by grafting and budding, where the same kinds are desired to be maintained. The seeds of the quince reproduce the same sorts with greater certainty than those of other fruits, still varying some, and hence the different shapes from pear to apple. They may be grown as trees or bushes. The finest fruit is produced from single standards with well-formed heads. The only excuse for growing them in bush form is, to supply a second trunk, if the first should be destroyed by the borer.

To propagate by layers, lay down young shoots in the spring and cover with dirt, so as to leave two or three buds above the ground. Roots will generally be formed in autumn, when the layer and new root may be removed from the parent tree and set out in rows. Such as have not rooted may remain for the second year, when they may be transplanted. Quince cuttings should be placed not less than ten to twelve inches deep, leaving but a small portion above the ground, and mulching with dry leaves or brush to give shade. These will be fit to remove for standards in two or three years.

As a remedy for the borer in the quince tree, charcoal, blacksmith's cinders, and unleached ashes, have each been tried in turn, and, as far as we know, without effect. The only sure method is to extract the insect with a knife, and cover the wound with grafting wax. Thomas recommends, as a remedy for the borer, grafting the quince on a pear stock. Quinces are sometimes budded on the common thorn.

Quince bushes should be trained with a single trunk and a low bushy head, leaving no shoots or suckers to draw their nourishment from the main stem. Dig up the ground well in spring or early summer, and scatter from two to four quarts of salt over the surface as far as the roots extend; after which, spread a thick layer of straw or forest leaves around them, and they will take care of themselves until the fruit harvest, when you will be amply repaid for all your trouble. It may be necessary, however, when the fruit is well set on

the branches, to thin it out somewhat, leaving only the fairest and best formed specimens, evenly distributed, to prevent the limbs from breaking down with their burden.

**INSECTS AND PEAR BLIGHT.**—Prof. Turner, of Illinois, thinks he has discovered the cause of the western pear and apple blight. He finds little white specks on all parts of the tree, as every one has observed; but some of these are larger than the rest, appearing like a "mite of mould" on the bark. These he finds, by the use of the microscope, to contain "infinitesimal" eggs in vast numbers, which subsequently hatch into microscopic insects. They appear to exude a poison, which destroys the bark beneath, leaving small holes like the prick of an awl, and are in short the cause of blight, that is, in other words, death.

**THE CURCULIO.**—Corroborating facts are always interesting. The editor of the *Prairie Farmer*, on a visit to the orchards of E. Harkness, of Central Illinois, says: "Mr. H. has a piece of ground of which he proposes to make at the same time a plum orchard and a hog pasture. The idea of the thing was got from a neighbor, who had an orchard of this fruit where the swine ran, and who ate of the fruit abundantly for seven years, though none standing out of the inclosure bore; but on changing the tenants to another part of the farm, every plum was stung."

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FOR THE PLOUGH, THE LOOM, AND THE ANVIL.

#### PREPARATION OF SWAMP MUCK.

**Messrs. Editors:**—I would like to inquire (through the columns of your paper) how to prepare swamp muck for manure, taking into consideration the cost and trouble. I have a large quantity of muck, and would like to know how to use it to the best advantage.

I have used a little prepared in the following manner: I hauled the muck to the side of the hog-pen, and would throw a small quantity into the pen, and let it get well wet and mixed up with the excrements of the hogs, and then throw in more, and so on. It is rather a slow way, if a man wants to make a large quantity, unless he keeps a large stock of hogs. I have used a little this season, prepared as above described. I planted corn on it, and on old rotten barn-yard manure, side by side: the corn that was planted on muck is double in size of that that was planted on the old manure.

South Carthage, Me., July 15, 1852.

W. V. TAINTER.

The uses of muck are various. Refer to the descriptions of the variety of soils described in the last two numbers of our journal, and the reason will be obvious why either sort (except its own) will be benefited by the addition of muck. When the labor of composting is beyond our reach, we may resort to this mixture of muck with the original soil, with a certain assurance, that while no astounding results will be developed by the next crop, there will be a material improvement of the soil, which will be visible for years. Hence no such fertilizer should be suffered to lie useless, for want of ability to adopt the more inconvenient modes of treatment.

Peat not only acts as an ameliorator, improving the *condition* of the existing soil, but it actually improves the soil by the addition of fertilizing elements. It contains a large amount of gaseous ammonia, which it retains more

permanently than do most mixtures. Phosphates of lime and magnesia, extract of humus and the sulphates, are often present.

But the labor of composting is not so very great as to frighten even a poor man, who is not disposed to hire extra help. Let him bring quantities of it into his barn-yard, to mix with his fresh stable manure; and in addition to the fresh droppings of the cattle, and the clearings of the stables, let an entrance be made into it from the hog-yard. Green vegetables, soap suds, night-soil, &c., &c., may be added to very great advantage. A small proportion of litter may also be thrown in, which will tend to promote the access of the air to all parts of the heap, and thus secure more thorough fermentation.

If peat is added to the soil, without composting, lime should be mixed with it, to neutralize the noxious acids that are sometimes found in it. It should be suffered to dry, also, before it is applied to the soil, or carried to the barn-yard; otherwise its power of absorption will be comparatively limited, and thus, too, the transportation of a large amount of water will be avoided. The effect of frost is also very favorable, as it greatly facilitates pulverization, and prepares it for a more thorough mixture with the soil.

Peat, or muck, may be profitably mixed with dung in the ratio of 6 or 7 of the former to 1 of the latter.

But it is in place here to refer to our correspondent, Hon. Mr. Hubbard, who, on another page of this number, recommends, very wisely, we think, that even debt may be incurred sometimes in securing a profitable employment of what will otherwise remain useless. When, and how far, this course is to be justified, will of course depend on circumstances. But we see not why a debt should be regarded as contraband by the farmer alone, while it is often, and perhaps almost always, the only source of profitable labor in the mercantile if not in the mechanical department of industry.

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#### BARK SILK.

In the July number of the first volume of the *Silk Culturist*, page 31, bark silk, the produce of the Italian mulberry tree, is mentioned. And the ninth volume of the *American Agriculturist*, at page 54, contains, among others, the following extract of a letter of Dr. Daniel Stebbins, of Northampton, Mass.: "It has long been hoped that a cheaper and more rapid mode of separating the bark of the mulberry from the wood of the sprouts could be discovered than the ordinary process of doing it by hand. I have now hopes that it may be effected in this town, next season, by appropriate machinery." Since reading this, I have earnestly waited to hear that the Doctor's hopes may be realized, but in vain. Since hearing so much of flax-cotton, I have frequently wondered that some enterprising Yankee would not make an experiment with mulberry bark; or is even M. Claussen's process a humbug? I have a mulberry patch with trees sixteen or seventeen years old, which, by proper treatment, I confidently believe, will yield as many pounds of bark as may be raised from a like area of flax. If the process in the manufacture of bark silk can be effected by machinery, or other cheap and rapid mode, the raising of mulberry trees will be the most profitable department of agriculture.

EDWARD KOHLER.

N. Whitehall, Lehigh Co., Penn., July 3, 1852.



## THE PROPER PERIOD TO APPLY LIQUID MANURE.

THE following suggestions, found in the *Gardener's Chronicle*, (London,) are of great importance. The treatment necessary to secure growth is not always best calculated to secure the ripening, or hardening, of the wood already grown. One treatment is best for the increase of the wood of a plant or tree, and very different for securing large fruit. So also the size and quality of flowers or fruit may be very distinct matters as to the kind of cultivation required. But let us note the remarks of the English writer. He says:

In order to understand this part of the question, it must be borne in mind—1, that *liquid manure is an agent ready for immediate use*, its main value depending upon that quality; 2, that *its effect is to produce exuberant growth*; and 3, that *it will continue to do so as long as the temperature and light required for its action are sufficient*. These three propositions, rightly understood, point to the true principles of applying it; and, if they are kept in view, no mistakes can well be made. They render it evident that the period in the growth of a plant, at which it should be applied, depends entirely upon the nature of the plant, and the object to be gained.

If, for example, WOOD and LEAVES are all that the cultivator desires to obtain, it will be evident that liquid manure may be used freely from the time when buds first break, until it is necessary that the process of ripening the wood shall begin. Wood cannot ripen so long as it is growing; wood will continue to grow as long as leaves form, and its rate of growth will be in direct proportion to their rate of development; therefore, in order to ripen wood, growth must be arrested. But the growth of wood will not be arrested so long as liquid manure continues to be applied, except in the presence of a temperature low enough to injure or destroy it. Hence it is obvious that liquid manure must be withheld from plants grown for their wood and leaves, at the latest, by the time when two thirds of the season shall have elapsed. To administer it in such cases towards the end of the year would be to produce upon it an effect similar to that caused by a warm wet autumn, when even hardy trees are damaged by the earliest frost.

In the case of FLOWERS, it is to be remembered that the more leaves a plant forms the fewer the blossoms in *that season*; although perhaps the more in a succeeding season, provided exuberance is then arrested. The application of liquid manure is therefore unfavorable to the *immediate* production of flowers. It is further to be remarked, that even although flowers shall have arrived at a rudimentary state at a time when this fluid is applied, and that therefore their number cannot be diminished, yet that the effect of exuberance is notoriously to cause deformity; petals become distorted, the colored parts become green, and leaves take the place of the floral organs, as we so often see with roses grown with strong rank manure. In improving the quality of flowers, liquid manure is therefore a dangerous ingredient; nevertheless, its action is most important, if it is rightly given. The true period of applying it, with a view to heighten the beauty of flowers, is undoubtedly when their buds are large enough to show that the elementary organization is completed, and therefore beyond the reach of derangement. If the floral apparatus has once taken upon itself the natural condition, no exuberance will afterwards affect it; the parts which are small will simply grow larger and acquire brighter colors; for those changes in flowers which cause monstrous development appear to take effect only when the organs are in a nascent state, at the very moment of their birth. Hence it is clear, that in order to affect flowers ad-

vantageously by liquid manure, it should be given to plants at the time when the flower bud is formed and just about to swell more rapidly.

With FRUIT it is different; the period of application should there be when the fruit, not the flowers, are beginning to swell. Nothing is gained by influencing the size or color of the flower of a fruit tree; what we want is to increase the size or the abundance of the fruit. If liquid manure is applied to a plant when the flowers are growing, the vigor which it communicates to them must also be communicated to the leaves; but when leaves are growing unusually fast, there is sometimes a danger that they may rob the branches of the sap required for the nutrition of the fruit; and if that happens, the latter falls off. Here, then, is a source of danger which must not be lost sight of. No doubt, the proper time for using liquid manure is when the fruit is beginning to swell, and has acquired, by means of its own green surface, a power of suction capable of opposing that of the leaves. At that time, liquid manure may be applied freely, and continued, from time to time, as long as the fruit is growing. But, at the first sign of ripening, or even earlier, it should be wholly withheld. The ripening process consists in certain changes which the constituents of the fruit and surrounding leaves undergo; it is a new elaboration, which can only be interfered with by the continual introduction of crude matters, such as liquid manure will supply. We all know that when ripening has once begun, even water spoils the quality of fruit, although it augments the size; as is sufficiently shown by the strawberries prepared for the London market by daily irrigation. Great additional size is obtained, but it is at the expense of flavor; and any injury which mere water may produce, will certainly not be diminished by water holding ammoniacal and saline substances in solution.

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#### NEW BOOKS.

*The Natural History of Man; showing his three aspects of Plant, Beast, and Angel.* By JOHN B. NEWMAN, M.D., President of Harrodsburg Female College, and author of various works on the Natural Sciences. New-York: Fowlers & Wells. 1851. 295 pages. 75 cents.

This is a work peculiar in some respects, written in a chaste and pleasing style. "The nature of man is intended to be shown in his three aspects. First, his plant-life, or nutritive apparatus, comprising the description of the modes of working, as far as they can be given, of that power which gives shape to the body, supplying its wear and tear of particles with others, and also its production, by means of generation of other systems similar to its own. Second, the beast-life, or phrenological faculties, comprising an account of the nervous system and its attributes. Third, and lastly, the angel life or spirit, Jehovah's likeness and image." The author holds the doctrines of the Phrenologists as unquestionable, and regards the idea of spirit rappings, and of the intercourse between mortals and the spirit world, as neither new nor unphilosophical. While he entirely denies the divine claims of Swedenborg and others, he admits the truth of those experiences on which they found such claims, regarding Swedenborg, Mohammed, Jemima Wilkinson, and others, as deluded, perhaps to insanity; "types of a class who trust in their own powers, and neglect the plain letter of Scripture, and, giving themselves up to error and delusion, are made instruments of the Evil One to draw others as well as themselves into the pitfalls of destruction."

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#### *Harper's Magazine.*

This popular monthly is as good as ever. Critics have objected to it on the score of its being made up of English reprints. But, if it be so, it may still be excellent, for no literary work is more popular, and deservedly so, than Littell's Living Age. But we learn from the last number that \$1500 are paid monthly to editors, contributors, designers, engravers, &c., exclusive of the cost of mere manual labor. Surely this is enough to

Americanize the work. If it had a little more carbonic acid, or other sparkling and effervescing ingredients, mingled in a little more bountifully with the quiet, though beautiful waters of the realm where the Abbots reign undisputed monarchs, it would perhaps be still more popular. Its mechanical execution, including some of the exhibitions of wit and fun, is admirable. A day of jubilee should be held when this book shall take the place of the trashy light literature of the last few years.

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*First Book in Physiology, with Anatomy and the Laws of Hygiene.* By JOHN B. NEWMAN, M.D. New-York: Cady & Burgess, 60 John street. 187 pages.

"The house we live in." Who would not, and who should not know all about it, from foundation-stone to ridge-pole and chimney-top, with all the weaker places; the points most liable to injury from storms, or from local disarrangements; and how to secure and strengthen it in whole and in parts, &c.? Let every body who don't know this get Dr. Newman's book, and forthwith, and beside the uses, he will gain so much pleasure in many of its chapters, that he will go through it if possible at a single sitting. It is one of the best treatises on the subject, for families or for schools, we have ever seen. We should not know how to improve it.

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*Meyer's Universum.* Edited by CHARLES A. DANA.

This is published in numbers, at twenty-five cents each, and contains engravings, with a description, both of American and European scenery. Twelve numbers are to be published, comprising forty-eight plates. Four parts are on our table. In the selection and the execution, taste and skill are exhibited, and the work commends itself as one of the cheap and at the same time elegant productions of the American press, which are worthy a place on the centre-table even of the fastidious. Go and look at it. H. J. Meyer, publisher, 164 William street.

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**NEW MUSIC.**—If there is any one in want of new and popular music, vocal or instrumental, we commend such, just now, to William Hall & Son, Broadway. Among their late publications are the following:

"*Better than Beauty*," and "*Kitty Neil*," two charming ballads, by James G. Maeder, and sung by Mr. Henry Squires. Mr. Maeder's ballads have always a variety and freshness which makes them universal favorites. "*My Baby's Polka*," (we like to see the baby remembered,) also by Maeder, a simple and graceful composition. Brilliant variations on "*Dodworth's Very Best Polka*," by William Dressler, an interesting and very effective composition.

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## EDITORS' JOTTINGS.

A. J. DOWNING, ESQ., LATE EDITOR OF THE "HORTICULTURIST."—Among the victims by the destruction of the Henry Clay was A. J. Downing, the eminent Horticulturist. He was at the very head of his profession in this country. The *Tribune* very properly says of him: "A man of genius and high culture, thoroughly disciplined in his profession by long study and observation in Europe; with taste refined and judgment true enough to feel the deficiencies and to know the needs of our domestic, and especially our rural architecture; still in the prime of life and exercising a wide influence by his practical labors as well as by his writings; he is snatched from a sphere of high and beautiful utility, and a successor we cannot hope to find. What Mr. Downing had done and was doing to improve the fashion of our dwellings hardly

surpassed in value his contributions, theoretical and practical, to the kindred art of landscape gardening. Under his directing hand, the grounds of the Capitol and the Smithsonian Institution at Washington were being transformed into models of beauty in their kind; and the grounds about many private mansions also bear testimony to the same taste, the same wise sense of beauty and fitness. As a writer, Mr. Downing was remarkable for a mixture of strong sense, thorough understanding of his subject, and genial originality. The cessation of his monthly essays in the *Horticulturist* will leave a permanent blank in the literature of the Domestic Arts. While he drew his materials from the most varied culture, he was always, and in the most frank and manly way, an American. His chief aim was to refine the taste, and elevate the



social life and habits of his countrymen to something like the ideal proper to freemen. An artist, a scholar and a gentleman, we deplore his untimely loss; and a wide circle of acquaintances, who with us recall his eminent social as well as public qualities, will join with us in this tribute to his memory."

We fear that his loss will not easily be made up. For though we had not the pleasure of a personal acquaintance, we are assured, from various sources, that he was not only a *horticulturist*, but he was a *MAN*—one worthy of love, honor, and confidence.

**FATTENING CATTLE IN STALLS AND IN SHEDS.**—An experiment has been made in Scotland to try the comparative value of these two modes of fattening cattle. The animals, having been chosen, were divided as equally as possible; five were put in a sheltered court with plenty of shed room, and the others in boxes. At the beginning of October it was soon found that those in the court eat 134 lbs. per day, while those in the boxes eat only 112 lbs., or 23 lbs. less, thus proving that a certain degree of warmth is equivalent to food. After seven months, toward the end of April, they were all slaughtered, and the following results were found:

Cattle fed in boxes—beef, 3,262 lbs., tallow, 6,678 lbs.; Cattle fed in courts—beef, 3,416 lbs., tallow, 6,054 lbs.

These results show the superiority of feeding in boxes. It is thought that in a less mild winter they would have been more striking. In the course of the experiment the thermometer rose to 50 degrees, and the cattle under cover seemed to suffer from being too warm. It was found a trifling expense to comb them regularly, which speedily produced a very marked improvement.

**HAT FINISHERS' UNION.**—An association with this name has been established in this city for a couple of years past, and has its seat of operations at No. 11, Park Row. It is a joint stock company, and is organized under the provisions of a general law of the State, governing corporations. The members are all operatives in some capacity, and in addition to their weekly wages they receive a *pro rata* share of the profits of the establishment. It is a new feature in manufactures, so far as we know, and is understood to work well.

The Union has just introduced its fall style of hat, which is very beautiful and seasonable. In our purchases for a year past we have patronized the Union, and can speak from experience of the excellence

and durability of the hats manufactured by them. The association is a worthy one, and we are glad to learn that it meets with good encouragement from a discerning public. We commend it to the favorable notice of those in want of a cheap and durable article.

**BONE DUST vs. LEACHED ASHES.**—The *Working Farmer* for August has an interesting account of an experiment for testing the merits of these two kinds of manure for turnips. Two acres were taken—corn stubble; were ploughed in the fall and again in the spring, and brought into as good condition as possible. Alternate sections of twelve rows each were drilled with bone dust, the intermediate sections spread with leached ashes. The seed was sowed the last of May, and until July the difference was at once obvious. The difference was owing to a thorough germination of the seeds sown with the bone dust, and a failure of germination of those upon which the ashes had been used. The plants upon each portion seemed equally strong and healthy. The crop was thinned and hoed about the first of July, and from that time there could no difference be observed. The roots were mixed at harvesting, and at the feeding-out a great difference was perceived in the quality. Some roots were firm and fresh as when gathered, while others were soft and spongy. The question is asked whether this difference in quality is owing to the difference of the manure used.

**POST-OFFICE SYSTEM, AND POSTAGES.**—The number of newspapers and pamphlets chargeable with postage, which passed through the post-offices in the United States during the year ending June, 1851, was 82,685,872.

The number of letters that passed through the post-offices in the United States, in the same period, was 83,252,735. The number of dead letters was about 2,750,000, which contained about \$40,000. Of this amount \$36,000 was afterwards delivered. This calculation does not include bills, drafts, &c.

The number of letters delivered in *one week* in December, 1851, in the post-offices of Great Britain, including England, Ireland and Scotland, was 7,126,994. The net income of the post-office for that year was £52,233,006 sterling. This exceeded the expenditures by nearly £3,000,000 sterling.

Among the several States the amount of postage collected was as follows:

In New-York, -	\$1,551,373 63
" Pennsylvania, -	595,070 86
" Massachusetts, -	540,686 65
" Ohio, -	485,758 78

No other State paid so much as \$300,000, except California, which exceeded this sum by about \$2,000.

**AN IDEA IN GROWING ROOT CROPS.**—The experience of Mr. Thompson, steward to the Duke of Beaufort, in relation to growing root crops, is as follows:

"From having noticed," says he, "that in every case where roots were grown in the usual manner, the outer row was much better than the others, I was induced to try several experiments which resulted in my adopting the system you saw last autumn, and I believe the same results would follow if tried with swedes or other roots."

The plan alluded to was to sow mangold wurtzel and carrots on every other row. The result was one third more mangolds than on similar land entirely given to them. The writer of the article says that, seeing this statement, he had tried the experiment, and obtained a greater yield on the alternate than on the continuous rows, and also harvested eight tons of carrots per acre.

**AMBER.**—This substance is the fossil or gum of various species of trees, which are now extinct, allied to the firs and pines of the present age. It is chiefly found on the southern coast of the Baltic Sea. From the amber bed on the coast of Dirsschkeim, extending under the sea, a storm threw up, on the 1st of January, 1848, no less than 800 lbs. The amber "fishery" of Prussia formerly produced to the King about 25,000 crowns per month. After a storm, the amber coasts are crowded with gatherers, large masses of amber being occasionally cast up by the waves.

**THE WORLD'S FAIR IN NEW-YORK.**—The managers of the Association for the Exhibition of the Industry of all nations, have given notice that the Fair will be opened in New-York, on the 2d day of May next, 1853. They have had granted them the use of Reservoir Square, and are proceeding to erect thereon a building worthy of the purpose to which it is to be devoted. It is asked that all citizens of the United States interested in this American Crystal Palace will unite in their exertions to make the affair respectable and creditable to American enterprise and skill.

**GROWTH OF CHICAGO, ILLINOIS.**—In 1837 this city was incorporated. Its total valuation, being real estate only, was \$236,842. In 1850, its valuation of real estate was \$5,685,965, and of personal, \$1,534,284.

**SALE OF OATS.**—By a recent enactment of the Legislature of Maine, either the buyer or seller may demand 30 lbs. to the bushel.

At a meeting of the Massachusetts State Board of Agriculture, held at the State House, Dr. Edward Hitchcock, of Amherst, was unanimously elected Secretary of the Board. P.S. He has declined the office.

**COST OF LEGISLATURES.**—The expense of the last session of the Massachusetts Legislature was \$147,883.20; for the previous session, it was \$142,177.20. We wonder what was the cost of the sessions of the Legislature in Rhode Island.

**BRITISH IRON TRADE.**—In 1750, this amounted only to 30,000 tons; in 1850, it was 808,262 tons.

**BACK NUMBERS WANTED.**—A copy of the current volume, or other back numbers, will be exchanged for Nos. 3, 4, 5, 6, 7, and 9 of Vol. I.; Nos. 3, 6, and 12 of Vol. II.; or Nos. 1, 4, 5, and 6 of Vol. III., of *The Plough, the Loom, and the Anvil*. Or we will credit the first cost of the number, when received, in the account current of any subscriber.

**BRUISING APPLES.**—The *Working Farmer* says, in speaking of the great success of R. L. Pell, and the high price he gets in foreign markets: "Mr. Pell has occasionally made a thumb dent in an apple, and after tying a label to the stem, placed the apple so dented in the centre of a barrel of sound apples, requesting his agent in England to report the result. The report has always been, that more than half of such apples have been found decayed." How absurd, then, to club or shake apples from a tree, or even to tumble them by basketfuls, when hand picked, into barrels.

**MUSICAL.**—Madam SONTAG, almost the only vocalist living who can seriously attempt to rival Jenny Lind, is expected here in a few weeks. She has enjoyed a constant triumph in Europe for some twenty years, and will no doubt produce a very great sensation in the United States. She has also an excellent reputation as a wife and a mother.

ALBONI is also about to commence a series of concerts in this city and elsewhere. We have heard her wonderful tones, and can testify of their marvellous excellence, and of her perfect execution. A contralto voice can scarcely raise so high a *furor* as a soprano; but we confess ourself not only not disappointed after the reading in advance the praises of the press, but shall we say *captivated*. *Who was not?* Only think of it—Alboni and Sontag!

**THANKSGIVING** in New-Hampshire is to be on the 11th of November.

## TOPICS OF THE PRESS.

**THE LATEST LABOR-SAVING MACHINE.**—It is said that a Yankee has invented a potato-digging machine, which, drawn by horses down the rows, digs the potatoes, separates them from the dirt, and loads them up into the cart, while the farmer walks alongside, whistling "Hail Columbia!" with his hands in his pockets.

We do not know how true the above is, but such a machine is hardly more wonderful than one which is noticed in this week's *New-England Farmer*. It is a machine for picking stones, one of the most laborious duties of the farmer. The machine is described as a large cylinder on a common axle and cart wheels, containing four rows of teeth or lifters. Gearing on the hubs of the wheels and on the ends of the cylinder gives the latter a rotary motion, when the teeth pick up the rocks. When the box is full, the cylinder is raised and the load carried off and upset as from a common cart. What shall we have next?—*Boston Journal*.

Mercer, at Celina,	Oct.	28
Monroe, at Woodsfield,	"	7, 8
Montgomery, at Dayton,	"	5
Morrow, at ———,	"	5, 6
Morgan, at McConnellsville,	"	5, 6
Perry, at Somerset,	"	8, 9
Richland, at Mansfield,	Sept.	23, 24
Ross, at Chillicothe,	Oct.	8, 9
Seneca, at Tiffin,	Sept. 30 and Oct. 1	
Shelby, at Sidney,	"	28, 29
Stark, at Canton,	Oct.	7, 8
Trumbull, at Warren,	Sept.	8, 9
Tuscarawas, at Canal Dover,	Oct.	14, 15
Union, at Marysville,	"	12
Vinton, at McArthur,	"	5
Washington, at Marietta,	"	14, 15
Wayne, at Wooster,	"	5, 6
Wood, at Perrysburg,	"	6, 7

## AGRICULTURAL FAIRS FOR 1852.

## COUNTY FAIRS IN OHIO.

Ashtabula, at Jefferson,	Sept.	28, 29
Belmont, at ———,	Oct.	29, 30
Butler, at Hamilton,	Sept. 30 and Oct. 1	
Carroll, at Carrollton,	Oct.	19, 20
Clark & Madison, at London,	"	6, 7, 8
Clermont, at Batavia,	"	6, 7, 8, 9
Clinton, at Wilmington,	"	6, 7, 8, 9
Columbiana, at ———,	Oct.	13 and 14
Coshocton, at Coshocton,	Sept. 30 and Oct. 1	
Cuyahoga, at Cleveland,	Oct.	6, 7
Franklin, at Eastwood,	"	7, 8
Hancock, at Findlay,	"	15, 16
Holmes, at Millersburg,	"	14, 15
Huron and Erie, at Milan,	"	5, 6, 7
Jefferson, at Steubenville,	"	14, 15
Knox, at Mt. Vernon,	Sept.	29, 30
Lorain, at Elyria,	Oct.	6, 7
Licking, at Newark,	"	14, 15
Mahoning, at Canfield,	"	5, 6
Medina, at Medina,	Sept.	8, 9
Meigs, at Rock Spring Hotel,	"	30

## COUNTY FAIRS IN MASSACHUSETTS.

Essex,	Sept.	29, 30
Housatonic,	"	22, 23
Franklin,	"	22, 23
Worcester,	"	23
Hampden,	"	23, 24
Norfolk,	"	29
Worcester, (West.)	"	30
Middlesex,	Oct.	6
Berkshire,	"	6, 7
Plymouth,	"	7
Barnstable,	"	13
Hampshire, Franklin, and Hampden,	"	13, 14
Bristol,	"	14
Hampshire,	"	20
Cheshire, Keene, N. H.	Sept.	29
Connecticut River Valley, Lebanon, N. H.,	"	22, 23
Lewis Co., N. Y.,	"	5
Lowville,	"	
Bucks, Pa., at Newtown,	"	29
Windham, Ct.,	Sept.	29

(Erroneously printed in our last.)

**CURING BEEF IN TEXAS.**—A correspondent of the *N. O. Picayune*, writing from Corpus Christi, says:

"The object most worthy of notice here is Col. Kinney's large steam manufactory



for curing beef. It is on the plan invented by Dr. Lardner, and improved by George Stackweather, of Connecticut. The meat is preserved by the vacuum process, and being gradually worked in large iron cylinders, all the animal heat, air, and blood are extracted, and the meat thoroughly cured by the pickle, so that it will keep perfectly sweet for the longest voyage round the world. The process is effected in twenty-four hours, and the factory makes about sixty barrels per day. The machinery for this manufactory cost \$24,000. It is the most complete establishment of the kind, perhaps, in the Union. The factory is about two miles above the town, immediately on the sea-shore."

**RIDDING FEATHERS OF ANIMAL OIL.**—The following recipe for cleansing feathers of their animal oil gained a premium from the Society of Arts: Take for every gallon of clean water one pound of quicklime, mix them well together, and, when the undissolved lime is precipitated in fine powder, pour off the clean lime-water for use. Put the feathers to be cleaned in another tub, and add to them a quantity of the clean lime-water sufficient to cover the feathers about three inches, when well immersed and stirred about therein. The feathers, when thoroughly moistened, will sink down, and should remain in the lime-water three or four days; after which, the foul liquor should be separated from them by laying them in a sieve. The feathers should be afterwards well washed in clean water, and dried upon nets, the meshes of which may be about the fineness of cabbage-nets. The feathers must be from time to time shaken on the nets, and as they dry, will fall through the meshes, and are to be collected for use. The admission of air will be serviceable in drying. The process will be complete in three weeks; and, after being thus prepared, the feathers will only require to be beaten to get rid of the dust.

**COST OF THE CORN CROP IN THE WEST.**—The *Prairie Farmer* says he has made inquiry of several corn raisers in middle Illinois, of the absolute cost of this grain per

bushel in the crib. There was very little difference in their estimates, which ranged from *four to six cents*! The soil is of such a nature as to be ploughed with greatest ease; no hoeing is needed, all the cultivating being done by horses, the rows being from half a mile to two miles in length, and the husking of the huge ears being done from the standing stalks in the field.

**RISE OF LAKE ERIE.**—The *Ashtabula (Ohio) Telegraph* says that Lake Erie is full three feet higher than last year, overflowing the flats in the harbor. Fifteen years ago it stood exactly on the same level as it does now, and, according to observation and tradition, the period of fifteen years appears to be attended by high water, with strict regularity.

**MACHINE FOR WEAVING BAGS.**—A correspondent of the *Boston Journal* thus describes a machine in operation at the Stark Mills, Manchester, for weaving bags: "While in one of the rooms, we were much interested in witnessing the working of a machine invented by Mr. Cyrus Baldwin of Manchester, and which is called a Bag Loom Machine. It weaves bags whole, without seam, at the rate of 45 per day, and one girl can tend two, and in some cases three machines."

**CATCHING FLIES.**—The *Prairie Farmer* tells how they catch flies in England. Rosin is mixed with sweet oil, and spread over the surface of a newspaper, and then slightly sprinkled with sugar dust. The moment the fly puts down his foot he is fast. They are thus caught with great rapidity.

**OLD KNIVES AND FORKS.**—An exchange says, that if you wish to refasten the loose handles of knives and forks, make your cement of common brick-dust and rosin melted together. Seal engravers understand this recipe.

**TO REMOVE ANTS,** says the *Albany Cultivator*, apply a little spirit of turpentine with a feather



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# ADVERTISING DEPARTMENT OF THE PLOUGH, THE LOOM, AND THE ANVIL.

Advertisements of a proper character will be inserted according to the rates expressed in the Table herewith subjoined. An Index of the BUSINESS ADVERTISED, and the NAMES OF ADVERTISERS, appears under the Table of Contents on the second page of the cover, thus presenting peculiar inducements to advertisers.

## RATES OF ADVERTISING.

Space Occupied.	One Month	Two Months	Three Months	Six Months	One Year.
One square of 12 lines....	\$ 1 50	\$ 3 00	\$ 4 00	\$ 7 00	\$12 00
Two squares of 24 " ....	3 00	5 00	7 00	12 00	20 00
Three " of 36 " ....	4 00	7 00	10 00	15 00	25 00
One fourth of a page.....	5 00	8 00	12 00	20 00	32 00
One half of a page.....	10 00	15 00	20 00	30 00	50 00
One whole page.....	20 00	30 00	40 00	60 00	100 00

A square consists of TWELVE LINES of single width columns. The foregoing table, with these remarks, makes one square.

TO ALL  
Agriculturists, Horticulturists, & Florists.

The following valuable Books have just been published by

**JOHN P. JEWETT & CO.,**

17 & 19 CORNHILL,

**B O S T O N .**

BRECK'S BOOK OF FLOWERS, being a complete guide to the cultivation of a Flower Garden; by Joseph Breck, Esq. Price 75 cents.

SCHENCK'S KITCHEN GARDENER'S TEXT BOOK.—A thorough work on the management of the Kitchen Garden; by Peter A. Schenck. Price 50 cents.

A TREATISE ON HOT HOUSES; Their Construction, Heating, and Ventilation; by R. B. Lenchans, Esq. Price \$1.00.

COLE'S AMERICAN VETERINARIAN, or Complete Farrier; by S. W. Cole. Price 50 cents.

COLE'S AMERICAN FRUIT BOOK, or Complete Orchardist; by S. W. Cole. Price 50 cents. 48,000 Copies of Mr. Cole's two excellent books have been already published. The above valuable books are for sale by the principal booksellers throughout the country. 500 Agents wanted to sell the above in every State in the Union. Address, (post paid,) the publishers. jy.tf

Massachusetts Horticultural Seed Store,

38 SCHOOL ST., BOSTON,

**AZELL BOWDITCH, PROPRIETOR.**

Just received at this well-known establishment, a large assortment of

## GARDENING IMPLEMENTS,

Comprising—Shears for trimming hedges, and for trimming trees; Knives of various patterns, for pruning, budding, &c., &c.; Peach Pruners; Flower Scissors, &c., &c.

Also a large assortment of Perennial and Biennial Flower Seeds.

Garden Vases of various styles, Chimney Cans, &c.

Horticultural and Agricultural Books.

Bouquets, Cut-flowers, and fruit furnished at short notice. jy

## GREAT BARGAINS IN PIANOS.



PERSONS in want of Pianos are invited to examine our large assortment of instruments, which will be sold or let on the most reasonable terms. The Subscribers are the sole agents for the celebrated Boston houses, Hallett & Allen, A. W. Ladd, Woodward & Brown, and W. P. Emerson. Also in store, a good assortment of New-York Pianos. The great variety from which persons can here select, will enable them to procure a Piano that cannot fail to suit. Persons wishing a good Piano at a low price, will find it advantageous to call and examine. Pianos tuned.

SAFFORD & BROTHER,

369 Broadway, New-York



**C. J. GAYLER'S**

# SALAMANDER SAFES.

Depot, No. 90 JOHN STREET, Corner of Gold,

LATE OF 128 WATER STREET, NEW-YORK.

*Gayler's Double Flange Salamander Safes possess more security against fire than those of any other maker.*

The many severe tests to which they have been subjected, and recently in the great fires at Buffalo, Syracuse, Corning, St. Louis and San Francisco, have proved them to be fire-proof beyond all doubt. In every instance they have preserved their contents uninjured when exposed to fire.

Gayler's Safes are furnished with his improved Detector Lock, the reputation of which is fully established. For additional security against the application of Gunpowder, he has recently introduced his Patent Combination POWDER-

PROOF KEY-HOLE COVER. He has also lately introduced a NEW LOCK, which affords as full security against Pick-locks, False Keys and Gunpowder, as any other American Lock now known, not excepting those exhibited at the WORLD'S FAIR, the price of which is much below that of any other Lock now applied for extra security.

Salamander Safes, of all sizes, suitable for Merchants, Bankers, Jewelers, Lawyers, Dwelling houses, Steamboats, &c., on hand and for sale as above.

April



## Philadelphia, Wilmington and Baltimore Railroad.



**Four Daily Lines between Philadelphia and Baltimore.**

**FARE \$3.10.**—A reduction of 10 cents made to those purchasing tickets at the office.

**PHILADELPHIA, WILMINGTON, AND BALTIMORE RAILROAD LINES,** at 8.15, 1.45, 3, and 10.15.

On and after Thursday, April 1st, the Mail Lines for Baltimore will leave the Depot, 11th and Market streets, as follows, viz.:

**MORNING LINE** at 8 1-4 o'clock, daily, except Sunday, through in 5 1-2 hours, stopping at all the regular way stations on the road.

**AFTERNOON EXPRESS LINE** at 1 3-4 P. M., daily, except Sunday. Through in 4 1-2 hours—stopping only at Chester, Wilmington, Elkton, and Havre de Grace.

**NIGHT LINE** at 10 1-4 P. M., daily; through in 5 1-2 hours, stops at the principal stations on the Road.

The trains leave Baltimore for Philadelphia, as follows:—Express train at 8 1-2 A. M., and Mail trains at 11 A. M., and 6 1-2 P. M.

**NEWCASTLE AND FRENCHTOWN LINE** AT 3 P. M. The Steamboat Robert Morris will leave Dock st. Wharf daily, except Sunday, at 3 P. M. This line leaves Baltimore for Philadelphia from Bowly's Wharf at 6 1-2 A. M.

Fare by this Line, . . \$2.50 Forward Deck . . \$1.50

## Hudson River Railroad.—New-York to and from Albany and Troy.

**REDUCTION OF FARES.**—Through Fares \$1.50 between Albany and New-York, on all Trains. The Trains will run as follows:—

### Going North.

Leave New-York, from the Office, corner Chambers street and College Place, at

6 A. M. Express Train for Albany and Troy, connecting with Western Train, stopping only at Peekskill, Fishkill, Poughkeepsie, Rhinebeck and Hudson. Through in 4 hours, from 31st street.

7 A. M. To Peekskill, stopping at all way stations.

8 A. M. Way Mail Train for Albany and Troy, stopping only at Manhattan, Dobb's Ferry, Sing Sing, Peekskill, and all Mail Stations North.

9 A. M. To Peekskill, stopping at all stations.

11.30 A. M. Passenger and Freight Train to Poughkeepsie, stopping at all Stations.

1 P. M. Way Train for Albany and Troy, stopping at Yonkers, Tarrytown, Peekskill, Cold Spring, Fishkill, New Hamburg, Poughkeepsie, Rhinebeck, Tivoli, Oakhill, Hudson, and Stuyvesant, and connecting with the Express Train leaving Albany at 6 30 for Buffalo.

2 P. M. To Peekskill, stopping at all stations.

4 P. M. Way Train, to Albany and Troy, stopping at Yonkers, Dobb's Ferry, Dearman, Tarrytown, Sing Sing, Cruger's, Peekskill, Garrison's, Cold Spring, Fishkill, New Hamburg, Poughkeepsie, and all stations north, on signal.

4.30 P. M. To Poughkeepsie, stopping at all way stations.

6 P. M. Express Train for Albany and Troy stopping only at Peekskill, Fishkill, Poughkeepsie, Rhinebeck, Hudson and Stuyvesant. Through in 4 hours from 31st street, and connecting with Western Trains.

6.15 P. M. To Peekskill, stopping at all way stations.

7.30 P. M. Emigrant and Freight Train for Albany and Troy, stopping at all way stations.

Poughkeepsie to Albany; leave Poughkeepsie at 6.15 A. M., stopping at all way stations.

### Going South.

Leave Troy Engine Station at 5.45 A. M., and Albany at 6 A. M. Way Mail Train for New-York, stopping at all stations where there are Mails to be received and delivered.

Leave Troy Engine Station at 6.45 A. M., and Albany at 7 A. M. Express Train for New-York, stopping only at Hudson, Rhinebeck, Poughkeepsie, Fishkill, Cold Spring and Peekskill. Through in 4 hours.

Leave Troy Engine Station at 10.45 A. M., and Albany at 11 A. M. Way Train, stopping at Stuyvesant, Hudson, Oakhill, Tivoli, Barrytown, Rhinebeck, Hyde Park, Poughkeepsie, Fishkill, Cold Spring, Peekskill, Cruger's, Sing Sing, and Dobb's Ferry.

Leave Troy Engine Station at 3.20 P. M., and Albany at 4 P. M. Way Train, stopping at Stuyvesant, Hudson, Oakhill, Tivoli, Barrytown, Rhinebeck, Hyde Park, Poughkeepsie, New Hamburg, Fishkill, Cold Spring, Garrisons', Peekskill, Sing Sing, Tarrytown, and Yonkers.

Leave Albany at 4.30 P. M., for Poughkeepsie only, stopping at all way stations.

Leave Troy Engine Station at 6 P. M., and Albany at 6.15 P. M. Express Train, stopping only at Hudson, Rhinebeck, Poughkeepsie, Fishkill, and Peekskill. Through in 4 hours.

Leave Troy Engine Station at 8.30 P. M., and Albany at 8.45 P. M. Night Mail Train, stopping at all stations on signal.

### LEAVE POUGHKEEPSIE FOR NEW-YORK.

At 6.45 A. M., stopping at all stations above Peekskill, and at Cruger's, Sing Sing, Tarrytown, Dearman, Dobb's Ferry, Hastings, Yonkers, and Manhattan.

8.45 P. M., Milk and Freight Train, stopping at all Way Stations.

### LEAVE PEEKSKILL FOR NEW-YORK.

At 5.50 and 6.30 A. M., and 3.30 and 6 P. M., stopping at all way stations. Passengers will procure tickets before entering the cars. Tickets purchased after entering the cars will be 5 cents extra.

GEORGE STARK, Superintendent.

New-York, June 14, 1852.

## New-York and Erie Railroad.—Summer Arrangement.

**TRAINS RUN AS FOLLOWS:**—Leave New-York from foot of Duane street, daily, as follows:—

1. Day Express Train, at 6 A. M., (Sundays excepted,) for Dunkirk, there connecting without delay, with first class steamers for Cleveland, running in connection with the Express Train for Cincinnati; and with first class steamers for Toledo and Monroe, running in connection with the Michigan Southern Railroad. (Dinner at Deposit, and supper at Hornellsville.) Passengers by this train take the Canandaigua Railroad at Elmira, and arrive at Rochester and Buffalo the same evening.

2. Mail Train at 8 A. M., (Sundays excepted,) stopping at all the stations. This train remains over night at Elmira, and goes on next morning at 7.30, arriving at Dunkirk at 4.55 P. M. (Dinner at Narrowsburgh.)

3. Way Train, at 3 P. M., (Sundays excepted,) for Piermont and Suffern.

4. Way Train, at 4.45 P. M., (Sundays excepted,) for Suffern and Otisville.

5. Evening Express Train, at 6 P. M. for Dunkirk, there connecting with first class steamers for Detroit direct; and also for Erie, Ashtabula, Cleveland, Sandusky, Toledo, and Monroe. On Saturdays this train runs only to Elmira. (Supper at Turner's. Breakfast at Hornellsville.)

6. Emigrant train at 6 P. M., (Sundays excepted,) for Dunkirk.

### TRAINS TO NEW-YORK.

1. Day Express Train leaves Dunkirk at 6 A. M., (Sundays excepted,) and arrives in New-York the same evening. Passengers from Buffalo and Rochester take this train at Canandaigua.

2. Way Train leaves Otisville at 6.05 A. M., (Sundays excepted.)

3. Mail Train leaves Elmira at 7.01 A. M., (Sundays excepted,) stopping at all the stations, and arriving in New-York same evening.

4. Mail Train leaves Dunkirk at 10.05 A. M., (Sundays excepted,) stopping at Elmira over night.

5. Accommodation Train leaves Dunkirk at 1.30 P. M., (Saturdays and Sundays excepted.)

6. Evening Express train, leaves Dunkirk at 5 P. M. Passengers from Buffalo and Rochester take this train at Canandaigua at 9.30 P. M.

### NEWBURGH BRANCH.

Trains run daily, (Sundays excepted,) as follows:—Leaving Newburgh at 6.05 A. M., and 5.15 P. M. Leave Chester at 7.25 A. M., and 6.20 P. M.

### FREIGHT TRAINS.

Freight Trains leave from foot of Duane street, at 6 P. M., for all stations on the road, and for Canandaigua, Rochester, Buffalo, and all the Western States.

CHARLES MINOT, Superintendent.

## For Boston, Via Newport and Fall River.

By the splendid and superior steamers **EMPIRE STATE** and **BAY STATE**, of great strength and speed, particularly adapted to the navigation of Long Island Sound, running in connection with the Fall River and Old Colony Railroad, a distance of 53 miles to Boston only.

Leave pier No. 3, North River, near the Battery.

The steamer **BAY STATE**, Captain William Brown, on Mondays, Wednesdays, and Fridays, at 5 o'clock, P. M.

The steamer **EMPIRE STATE**, Captain Benj. Brayton, on Tuesdays, Thursdays, and Saturdays, at 5 o'clock, P. M.

This Line is the only one that runs direct from Newport.

These steamers are fitted with commodious state rooms, and every arrangement for the security and comfort of passengers, who are afforded by this route a night's rest on board, and on the arrival at Fall River proceed per railroad, reaching Boston early the following morning; or can remain on board until after breakfast, and leave Fall River at a quarter past 6

o'clock, A. M., by the accommodation train, which arrives in Boston at a quarter before 9 o'clock, A. M.

The rates for passage and the price of state rooms, the same as by the other lines.

A steamboat runs in connection with this line to and from Providence, daily, except Sundays.

Fare from New-York through to Providence, Fall River, or Newport, \$3. To New-Bedford, fare \$3 60.

Freight to Boston is taken at the same rates as by the other regular lines, and forwarded with greater expedition by an Express freight train, which leaves Fall River every morning (Sundays excepted) at 7½ o'clock, for Boston and New-Bedford, arriving at its destination at or about 11, A. M.

For freight or passage, apply on board, or at the office on Pier 3, North River. For state rooms or berths, apply on board; or if it is desired to secure them ahead, application may be made to **TISDALE & BORDEN**, Agents, 70 and 71 West street.

## Camden and Amboy Railroad for Philadelphia.

From Pier No. 1, North River, foot of Battery-place, by Steamboat John Potter. Two lines daily. Morning Line leaves at 7 A. M.; Afternoon Express Line at 2 P. M., through to Philadelphia in 4 1-2 hours. Fares: 1st class cars, \$3; 2d class line, by 2 T. M., only \$2. Returning, leave Philadelphia from foot of Walnut st., at 8 A. M., and 2 P. M. Emigrant Line by steamboat Transport, from Pier No. 1, at 5 P. M. Fare, \$1.50.

### FROM PHILADELPHIA FOR NEW-YORK,

AND INTERMEDIATE PLACES.—Through in 4½ hours.

At 8 o'clock A. M. and 2 o'clock, P. M., from Walnut street Wharf.

FARE, \$3. Second Class at 8 A. M., only \$2.

Returning, leave New-York from Pier No. 1, North River, at 8 A. M., and 2 P. M.

## New-York and New-Haven Railroad.—Summer Arrangement.

May 3, 1852.—Trains out of New-York, leave near corner of Canal street and Broadway.

**ACCOMMODATION AND SPECIAL.**—At 7 and 11.30 A. M.; 4.15, (Express to Stamford and Norwalk, and stopping at all stations beyond,) and at 5.30 P. M., through to New-Haven. At 3.50 P. M., for Norwalk—at 8.50 A. M., and 6.30 P. M., for Port Chester. The 1.30 A. M. runs in connection with train from New-Haven to Hartford and Springfield, and with train over the Canal Road.

**EXPRESS TRAINS** for New-Haven, Hartford, Springfield, Boston, Connecticut River and Vermont Railroads, to Ogdensburg and Montreal.—At 8 A. M., stopping at Stamford and Bridgeport, connecting with the Housatonic and Naugatuck Railroads at Bridgeport, and Canal Railroad at New-Haven—and at 3.30 P. M., stopping at Stamford, Norwalk, and Bridge-

port, connecting with Housatonic and Naugatuck Railroads at Bridgeport.

**TRAINS INTO NEW-YORK.**—Accommodation and Special.—At 5.30, 7, and 9.30, A. M., and 4.20 P. M., through from New-Haven. At 6 A. M., from Norwalk—at 5.30 A. M., and 3.45 P. M., from Port Chester. The 9.35 A. M., receives passengers from Springfield and Hartford and Canal Railroads at New-Haven. The 4.20 P. M. receives passengers from Hartford and Springfield Railroads.

**EXPRESS TRAINS** leave New-Haven on arrival of trains from Boston, at 1.15 and 3.50 P. M., (stopping at Bridgeport, Norwalk, and Stamford) leaving Boston at 8 A. M., and 3.45 P. M.

See large bill of advertisement at the Station House and principal Hotels.

**GEO. W. WHISTLER, Jr.,**  
Superintendent.

## New-York and Harlem Railroad.—Summer Arrangement

On and after Monday, July 19th, the following trains will leave (Sundays excepted) City Hall Station, corner of Tryon Row and Centre street. Passengers also received at the Ticket Office, corner of Broome street and Bowery, and at Twenty-sixth street; also at the usual stopping places on the street.

1st. 7.30 A. M. Croton Falls Accommodation Train, stopping at all the usual way stations above Fordham.

2d. 10 A. M. Chatham Four Corners Mail Train, connecting with the Western Railroad Trains for Albany and Troy, or Springfield, stopping at all stations north of Fordham.

3d. 3 P. M. Chatham Four Corners Accommodation Train, connecting with Western Railroad Trains for Springfield, stopping at all stations north of White Plains, and on signal at intermediate stations between Fordham and White Plains for passengers going north of Croton Falls station.

4th. 3.30 P. M., White Plains Local Accommodation Train, stopping at all intermediate stations.

5th. 4.30 P. M., Croton Falls Accommodation Train, stopping at all the usual way stations.

6th. 5.30 P. M. Croton Falls Accommodation Train, stopping at all the usual way stations south of White Plains, and at Kensico, Pleasantville, Newcastle, Bedford, Mechanicsville, and Purdy's on signal.

### RETURNING.

1st Train. 6 A. M., from Croton Falls, Accommodation Train, stopping at Purdy's, Mechanicsville, Bedford, Newcastle.

Pleasantville, and at Kensico on signal, and at all the way stations south of White Plains.

2d. 7.20 A. M., from Croton Falls, Accommodation Train, stopping at the way stations north of Fordham.

3d. 5.30 A. M., from Chatham Four Corners, stopping at, and the usual stations north of, White Plains; also Tuckahoe and William's Bridge.

4th. 1.15 P. M., from Croton Falls, Accommodation Train, stopping at, and all way stations north of, Harlem.

5th. 2 M., from Chatham Four Corners, in connection with Western Railroad, (East and West) stopping at, and all intermediate stations north of, Fordham and Morrisania, Mott Haven and Harlem.

6th. 6.30 P. M., from White Plains, Local Accommodation Train, stopping at all intermediate stations.

Other Local Accommodation Trains leave the City Hall Station for William's Bridge at 11.30 A. M., and 6.30 P. M.

For Fordham 7, 8.30, 9.30, A. M.; 1, 2.30, 5, 8 and 11 P. M.

Returning, leaves William's Bridge at 5.40 A. M., and 1 P. M. Leave Fordham at 5.45, 6.45, 8.30, 9.45 and 11.15 A. M.; 2.15, 4.30, 6.30 and 9.15 P. M. Leave Mott Haven and Harlem at 6, 7, 8, 8.45, 10, 11.30 A. M.; 1.20, 2.30, 3.25, 4.45, 5.32, 6.45, 7.35 and 9.30 P. M.

For Sunday arrangement see hand bills.

New-York, July 12th, 1852.

**M. SLOAT,**  
Superintendent.

## FARMER'S BOILERS, OR LAUNDRY KETTLES,

OF ALL SIZES, FOR SALE BY

**BARTLETT, BENT & SON,**

No. 238 WATER STREET, New-York.



# TO PRACTICAL MEN.

*Just Published.*

NORRIS'S HAND BOOK FOR LOCOMOTIVE ENGINEERS AND MACHINISTS. 12mo. \$1 50.

"Coming from such a source it is a work which we hail as a boon to the Engineering Community."—*Scientific American*.

"With pleasure do we meet with such a work."—*Artisan*.

"The practical knowledge of such men can hardly be over-estimated."—*Balt. Patriot*.

THE ASSAYER'S GUIDE; or Practical Directions to Assayers, Miners and Smelters for the Tests and Assays by heat or wet

processes of the Ores of all the principal Metals, and of Gold and Silver Coins and Alloys. By O. M. LIEBER. 12mo. 75c.

THE PAPER HANGER'S COMPANION. By JAMES ARROW-SMITH. 12mo. 75c.

A TREATISE ON A BOX ON INSTRUMENTS AND THE SLIDE RULE, for the use of GAUGERS, ENGINEERS, SEAMEN AND STUDENTS. By THOMAS KENTISH. Illustrated by numerous engravings. 12mo. \$1.

THE PRACTICAL MODEL CALCULATOR, for MECHANICS, ENGINEERS, NAVAL ARCHITECTS, &c. By OLIVER BYRNE. In one vol. royal 8vo. \$3 50.

## HENRY CAREY BAIRD,

SUCCESSOR TO E. L. CAREY,

June, 31.

*Scientific Publisher, Philadelphia.*

# UNION AGRICULTURAL WAREHOUSE AND SEED STORE.

## RALPH & CO.,

Manufacturers and Venders of Agricultural Implements and Machines,  
and Dealers in Field and Garden Seeds, Fruit and Ornamental  
Trees, Domestic Animals, Fertilizers, &c.,

NO. 23 FULTON ST., NEAR FULTON MARKET, NEW-YORK.

THE Subscribers announce to their friends and the public that they have opened an establishment for the manufacture and sale of articles as above, which they offer at moderate prices.

The principal Implements and Machines are made under their own immediate supervision, by experienced mechanics, from the best materials, and after recently improved models.

The SEED DEPARTMENT embraces all the approved varieties adapted to the field and garden culture of the West Indies, Mexico, and the whole territory of the United States; and the FRUIT and ORNAMENTAL TREES, as well as the DOMESTIC ANIMALS, furnished by us, will be of the choicest kinds, and selected by competent judges.

Among the FERTILIZERS are included the best quality of Peruvian Guano, Plaster, Bone Dust, and Native Phosphate of Lime.

In order to give an idea of our establishment, and to avoid replies to numerous inquiries, we have issued a "Descriptive Catalogue" of about 100 pages, containing the Price List, and

various engravings illustrative of some of the articles we keep on sale, which will be furnished *gratis* to those who may apply for it personally or by mail.

All orders for goods, &c., will be punctually executed, which may be addressed to us, by mail or otherwise, accompanied with the money, or a draft at sight or acceptance on some responsible house in Boston, Philadelphia, or New-York.

The direction may be made in French, German, Spanish, Portuguese, or English, which should be written out in full, in a clear and intelligent manner, in order to avoid mistakes or delays, which might otherwise occur.

*Produce on Consignment.*—We are prepared to receive and sell on commission all kinds of Agricultural Produce, not immediately perishable; such as grain, seeds, indigo, cochineal, beef, pork, butter, eggs, rice, sugar, molasses, honey, wax, hides, cocoa, tobacco, cotton, wool, hemp, mahogany, &c. &c.

RALPH & CO.

March. 3m.

## FOR SALE,

## IMPROVED SHORT-HORN & ALDERNEY CATTLE,

Of different ages; the greater part of them bred on the farm of Thomas P. Remington, Esq. Many of the Short Horns are descendants of the herd of the late Mr. Bates, of Kirkleavington, England, justly celebrated as one of the best and most scientific breeders of the age. The Alderneys have been bred directly from the best imported Stock. The Cows are unrivalled as rich Milchers. Apply to

**AARON CLEMENT, Agent**

for the purchase and sale of improved Stock, &c.,

**Cedar Street, above Ninth Street, Philadelphia.**

ept. 17.

# ANDREWS & JESSUP,

No. 70 PINE STREET, New-York,

## COMMISSION MERCHANTS

FOR THE SALE OF ALL KINDS OF

COTTON AND WOOLEN MACHINERY, LEATHER BELTING, &C.; BROKERS IN DYE-WOODS,  
DYE-STUFFS AND OILS. ALSO, IMPORTERS AND DEALERS IN EVERY VARIETY OF

**MANUFACTURERS' ARTICLES.**

Mar. 1y.

## J. E. BADEAU,

Designer and Engraver on Wood,

102 NASSAU STREET, Corner Ann, NEW-YORK.

Mar. 3t.

## GRAND SALE

OF SUPERIOR THOROUGH-BRED

## SHORT-HORN CATTLE.

The subscriber will offer for sale his entire herd of choice Short-Horns, comprising 50 head, young and old, at Public Auction, on Wednesday, the 13th day of October, 1852, at one o'clock P.M., at his farm, 2½ miles from the City of Troy; reserving to himself one bid on five Cows and Heifers, and one Bull, say six head in all, and these to be pointed out previous to the commencement of the sale; this bid will be made public when the six animals are brought to the stand for sale. Should any gentleman advance on the single bid made by the proprietor, the highest bidder will be entitled to the animal. It is proper to say, the severe drought in this vicinity, reducing the hay crop one half, has decided the proprietor to make this sale at the time named, instead of next June, which he had purposed to do.

The well-established reputation of this herd in this Union, and in Canada, and the splendid herd it has measurably sprung from, viz., the famed herd of that eminent English breeder, the late Thomas Bates, Esq., renders it hardly necessary to comment upon its superior merits. It may not, however, be inappropriate to remark, that the establishment of this herd was commenced in 1838, and that the most careful attention has since been paid to its breeding, and that it now contains mostly all the reserved stock of two former public sales. Since 1840, the proprietor has imported from the late Mr. Bates, and his friends and late tenants, the Messrs. Bells, seven head of Short-Horns. And besides these, he has now on the passage across the Atlantic, shipped 21st of June, on board the packet ship "Kossuth," Capt. James B. Bell, a superior yearling roan Bull, having many crosses of the famed Duchess Bulls of Mr. Bates. Including this latter animal, and the beautiful red roan three year old Heifers, which came out from England last September, "Yarm Lass," and "Yorkshire Countess," and the beautiful Heifer Calf of the latter animal, got in England, by the Duchess Bull, "Fifth Duke of York;" there will

be fourteen head of this imported stock, and its immediate descendants. There have been sold from this herd but three Heifers from these importations, and these Cows were sold at \$300 each. All the young Bulls bred from these Cows, except those now offered for sale, have also been sold at private sale, \$300 each, most of them while quite young.

Besides these 14 head of high-bred animals, the noble premium Cow, "Esterville Third," bred by E. P. Prentice, Esq., of Albany, and her equally fine two year old red and white Heifer, bred by me, got by the Bates Bull, "Meteor," and three of the famed Milking Willey Tribe, the same tribe of Cows as the Heifer, "Ruby," sold by me to Mr. S. P. Chapman, of Madison Co., and which Cow was awarded the first premium by the N. Y. State Agricultural Society, for producing the largest quantity of butter in ten days in June, and ten days in August, on grass pasture only, being a fraction over 40 lbs. in those twenty days. There are other valuable tribes in the herd, as the printed catalogue will show.

The catalogue will be ready for distribution about the 1st of August, and will exhibit richness of pedigrees rarely to be met with, showing the descent of the most of the animals, from the best animals on record in the English Herd Book. Having received an invitation from H. Strafford, last winter, to forward a list of the pedigrees of my herd to be inserted in the forthcoming volumes of the English Herd Book, of which Mr. Strafford is now the Editor, several pedigrees were sent to him of the animals here offered for sale, and will appear in said book.

A credit of nine months will be given on all sums up to \$300, and nine and eighteen months on all sums over \$300, for approved paper, with interest, payable at some bank in this State.

Troy, N. Y., July 9th, 1852.

GEO. VAIL.  
Aug. 3m.

# FRANCIS' PILOSITOUS COMPOUND

Is GUARANTEED to restore the hair in all cases. The conditions are made known in the circular that accompanies each bottle. For a toilet article, to beautify and soften the hair, to remove blotches and pimples from the skin, there is nothing superior. If the proprietor dealt in certificates, he could have had a large collection on hand, but his terms will satisfy every candid person as being perfectly equitable.

Contract prices vary from 20 to 75 dollars. His Perennial

Compound is prepared to restore gray hair to its original color without dyeing, for which the contract price is \$10 per head.

For sale by F. M. CRAKEN, 312 Broadway, New-York, who is the Sole Proprietor and Manufacturer. Price twenty-five cents per bottle, with a liberal discount to dealers. Foster & Makin, 70 Dock street, Philadelphia, A. S. Jordan, 191 Webster street, Boston, are agents, with other respectable Druggists throughout the Union. Dec. 51.

## HENRY L. FOSTER,

LATE "BOOTH & FOSTER,"

## CLOTHING AT WHOLESALE & RETAIL,

27 Courtland Street, New-York.

Clothing made to order in the best style, and sent to any part of the United States.

## FRUIT AND ORNAMENTAL TREES FOR SALE.

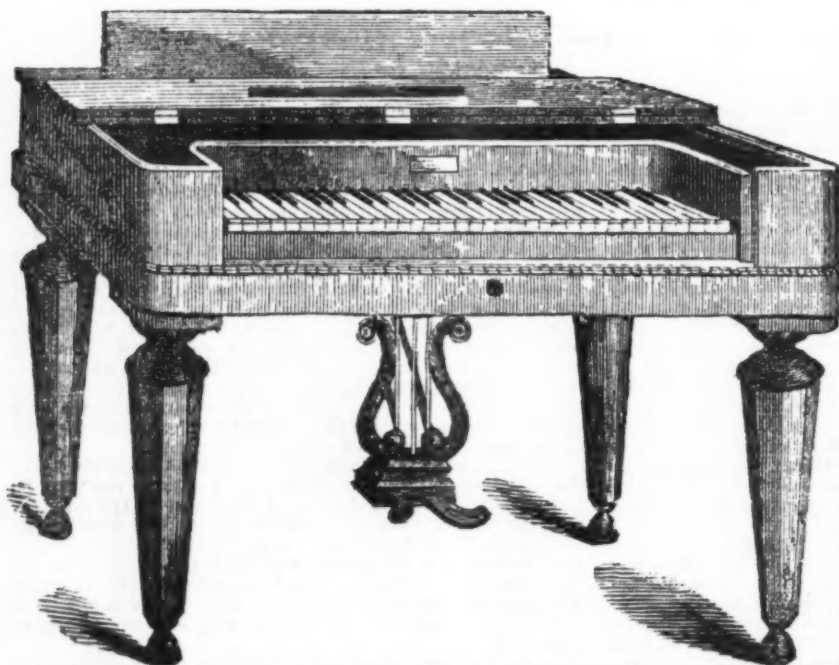
50,000 Peach of one and two years' growth, from the bud ; 40,000 Apple ; 5,000 Cherries ; 5,000 Dwarf Pears—each containing all the most esteemed varieties, and of large size. Also Quinces, Plums, Nectarines, Apricots, Almonds, Grapes, Raspberries, Gooseberries, Currants, Strawberries, &c., &c.

50,000 Silver and Ash Leaved Maple Seedlings of one year's growth ; 50,000 Apple seedlings. They will be sold in large or small quantities, and on the most reasonable terms. Catalogues, with prices annexed, will be sent to all applicants.

Hightstown, Mercer County, N. J., March, 1852.

**ISAAC PULLEN.**

## PRINCE & CO.'S IMPROVED MELODEON.



This instrument, formerly known as Carhart's Patent, has of late received valuable improvements by the manufacturers, G. A. Prince & Co., and now, as we believe, is recognized as the most perfect in its construction, and in the quality of its tones of any instrument of the kind yet offered to the musical public.

The cases are of rosewood, and as handsomely finished as a piano forte. The key board is precisely the same as the piano or organ, and the tone clear, pure, and round, and in volume equal to a small organ, and by means of a swell may be increased or diminished at the pleasure of the performer.

The key notes respond at the slightest touch, and will admit of the performance of as rapid passages on the piano. One pedal controls the swell, and the other supplies the wind, and works so easily that a child can manage it effectually.

Of these instruments, we understand that from 75 to 80 are made per week by Messrs. Prince & Co., at their manufactory in Buffalo, where they have one hundred and fifty men in constant employ.

For further particulars we refer our readers to Messrs. **W. HALL & SON, 239 Broadway**, who have lately become sole agents in this city for the sale of the above celebrated instruments.



# SEVENTH ANNUAL REPORT OF THE NEW-YORK LIFE INSURANCE COMPANY, NO. 106 BROADWAY,

MADE IN ACCORDANCE WITH THE PROVISIONS OF THE CHARTER.

Amount of Assets as per statement of Jan., 1851, \$354,755 24

During the year 1851, 1,329 Policies have been issued. The premiums during the same period amounted to \$303,074 64  
Amount received for interest, 18,708 08  
\$321,782 72

## Disbursements.

Amount paid for losses by death, less discount for payments in advance, \$157,05 16  
Amount paid for expenses, viz.:  
Salaries, fees to physicians, trustees, clerk hire, &c., 10,122 83  
Advertising, office rent, furniture, printing, stationery, &c., 5,062 79  
Commissions, postages, medical examinations, exchange, &c., 37,861 16  
Interest on dividends, dividend on subscription notes, re-insurances, &c., 4,657 57  
Taxes, 3,494 34  
Return premiums allowed on cancelled policies, 1,534 01  
219,786 86  
101,995 86  
\$456,751 10

## Assets.

Invested in United States and New-York State Stocks, in accordance with the charter, \$185,866 59  
Cash on hand, 26,079 11  
Bonds and Mortgages, 62,577 00  
Notes received for 40 per cent. on Life Policies, 175,016 53  
Premiums on Policies in hands of Agents, 7,221 87

Total amount of accumulated Capital, \$456,751 10

The Board of Trustees have declared a dividend of FORTY PER CENT. on Policies for the whole term of Life, and six per cent. interest on former dividends.

The principles of this Company are purely mutual, so as to be the most economical and secure to the members.

Dividends are made annually on all Life Policies in the shape of Stock, bearing interest at 6 per cent., payable in cash. These Dividends have always been 40 and 50 per cent.; by this mode the annual premiums are regularly reduced from year to year.

On Life Policies, where the premiums amount to \$50, 40 per cent. of it can be paid by note.

Pamphlets, containing full exposition of the principles and mode of operation, can be had gratis at the office of the Company, 106 Broadway, New-York, or at any of its Agencies.

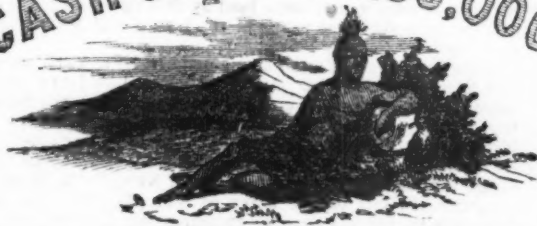
MORRIS FRANKLIN, President.

PLINY FREEMAN, Actuary.  
Jan. 31, 1852.

Mar. 3m.

## Manhattan Life Insurance Company, 108 Broadway, Cor. Pine Street, N. Y.

CASH Capital \$100,000.



DEPOSITED WITH THE COMPTROLLER OF THE STATE FOR THE SECURITY OF ALL POLICY HOLDERS, exclusive of a large and rapidly augmenting Premium Fund.

Persons Insuring with this Company, will be entitled to their pro rata share of the first declared dividend. The rates and principles adopted have stood the test of experience, and must secure, beyond contingency, the object for which Life Insurance is effected, — immediate and permanent aid to the widow and orphan.

A. A. ALVORD, President.

C. Y. WIMPLE, Secretary.

N. D. MORGAN, Actuary.

ABRAM DU BOIS, M.D., Medical Examiner, attends at the office daily, from 2 to 3 o'clock P.M.

Prospectuses to be had at the office gratis.

Mar. 3m.

## MECHANICS' UNION ASSOCIATION,

Office, CITY ASSEMBLY ROOM, 442 BROADWAY, New-York

Accumulated Cash and Guaranty Capital, \$50,000.

M. B. DEAN, President.

W. PATTEN, G. C. WOOD, H. B. JUDKINS, Financial Committee.  
This is an Association of Workingmen and others, for the mutual assistance of each other in case of sickness or accident.

By the payment of the following annual deposits, you will become a life member, and will be entitled to a weekly benefit during life, if you should be disabled by sickness or accident from attending to your ordinary business or occupation. Females Insured against sickness common to both sexes.

Yearly Deposit of Members under 50 years of age.

\$2 00 per year draw \$3 00 per week.

3 00	"	"	4 50
4 00	"	"	6 00
5 00	"	"	7 50
6 00	"	"	8 75
7 00	"	"	10 00

Those over fifty years of age will be charged twenty-five per cent. extra. \$1 50 admission fee will be charged in addition to the above, the first year, and must be paid at the time of application, and the first year's deposit within thirty days. mr.

## Mechanics' Mutual Benefit Association of Springfield, Mass., Branch Office, 289 Broadway, New-York.

Accumulated Cash Capital, \$33,000; Guaranty Capital, \$60,000.

This is an Association of Mechanics and others, for their mutual relief in the case of sickness or accident, and at the decease of a member, this Association shall appropriate \$20 as a Funeral Benefit, to be paid to the relatives of the deceased.

One Dollar and fifty cents, in addition to the above, will be charged as admission fee, for the first year.

Annual Rates of Payment for Members under 50 years of age.

\$2 00	draws	\$2 per week.	\$6 00	draws	\$6 per week.
3 00	"	3 "	7 00	"	7 "
4 00	"	4 "	8 00	"	8 "
5 00	"	5 "			

Female Rates from \$2 to \$4.

S. C. FRINK, Secretary,

BROADWAY, First Floor, up stairs, room No. 10.

Mar. ex.

# FAIRBANKS' PLATFORM SCALES.

The subscribers keep constantly on hand every variety of these superior Balances, warranted in good faith to be ACCURATE, DURABLE, AND NOT LIABLE TO DERANGEMENT, or expense for repairs.

FAIRBANKS & CO.,  
89 Water Street.

## Certificate of the Inspectors of Weights and Measures in New-York.

"We, the undersigned, having had occasion to test the various Platform Scales now in use in the City of New York, are pleased to bear testimony to the superior character of those manufactured by E. & T. FAIRBANKS & CO., St. Johnsbury, Vt., and do cheerfully recommend them to the public as the most perfect Weighing Machines in use.

[M'y-6t] HENRY SWORDS,  
ENOCH DEAN,

EDMUND WEEKS,  
JOHN S. EARLS,

PETER ESQUIROL,  
JOHN W. WHEELER."



## \$25 ONLY



For eight village Lots, or one of Fifty Farms, containing from Four to Twenty Acres each, adjoining the Villages of Lake Land and Hermanville—many of the Lots near these have already been sold for 100 per Cent advance over the price for which these Lots are now sold for, showing conclusively that the purchase will be a good investment.

The opportunity is now offered to all those who ever wish to obtain land on Long Island, the ancient "Garden of America," that will probably never occur again, for these lands are the only remaining new lands on the island, and are equal in quality, when cultivated, to any other land.

50 FARMS, WORTH OVER \$10,000, AND 6,000 LOTS, TO BE DISTRIBUTED AMONG 800 SUBSCRIBERS.

Each subscriber is entitled to 8 Lots, 25x100 ft., lying together, or one of 50 farms containing from 4 to 20 acres each, for \$25. The shares are limited at \$25—payable, \$5 when subscribed for, \$5 on or before the day of distribution, and the balance in monthly instalments of \$3.

The lots are situate in the Village of LAKELAND, on the Long Island Railroad, County of Suffolk, and 48 miles from the city of New York, where handsome buildings are erected.

The results of cultivation of these lands have been so great, so much beyond the expectations of any one, that they are now considered of great value for farms and gardens, and will, in all probability, be all taken up for settlement and occupation, or be held at more than five times their present price. All kinds of produce are raised there, such as wheat, rye, corn, potatoes and garden vegetables, with fruits and flowers, in the most luxuriant growth, where but a short time since the land was covered with trees and bushes.

I add the following letter from Mr. L'Hommedieu, who resides at Lakeland:—

LAKELAND HOTEL, Nov. 18, 1851.

Dear Sir—Having personal knowledge of the same, it gives me pleasure to answer your inquiry about the productions here, by stating that during the past season there have been raised 160 bushels of the best corn and potatoes to the acre, besides excellent yields of garden vegetables, as peas, beans, onions, squashes, pumpkins, beets, tomatoes, egg plants, &c.

IRA L'HOMMEDIEU, Deputy Postmaster.

Also one from Mr. J. C. Boeckel:—

NEW YORK, July 2d, 1851.

Dear Sir—I bought last year a farm of forty acres in the middle of the new Village of Hermanville, and I would not sell it now for \$100 an acre

Very respectfully yours, &c

JOHN C. BOECKEL, 99 Essex-st. N. Y.

To Charles Wood, Esq., 117 John-st. N. Y. city.

Lakeland Station is located on the borders of the Long Island Railroad, whence cars run several times a day to Brooklyn and New York. The surface of the land is

smooth and level, and the surrounding country is perfectly healthy, and within a few miles of this place, highly cultivated and valuable, having been settled for more than a hundred and fifty years, and where similar lands sell at from \$50 to \$200 per acre.

The surface of the ground is perfectly beautiful, free from stone, or bogs or marshes, and the climate as healthy as can be found in this latitude. The soil is a fine loam, admirably adapted to high cultivation and great crops, and of easy tillage.

When a man is industrious and attentive to his business, he soon becomes independent. Mr. John J. Stoothoff, of Jamaica, L. I., received in the year 1847, from about 30 acres of land, cultivated in Peaches, Peas, Potatoes, and Asparagus, about \$3,600. He sent all his produce to market with teams, a distance of more than 12 miles.

Mr. Van Sicklin, of Jamaica, L. I., cultivates 69 acres of land at a cost of about \$1,100 in labor and manure, and receives about \$3,600 per year. (See American Agriculturist, Feb. No. 1848, and also the Transactions of the New York State Agricultural Society.) These important cases show what industry and prudence can do on Long Island land. The land of Messrs. Stoothoff and Van Sicklin is very much such land as this now offered for sale, being in the same range of the Island, and in no way superior to these new lands.

Indeed no New England or Northern New York man can form any adequate idea how much less labor and strength are required to cultivate these Island lands than that required to subdue their own rugged lands, until he has seen or made the trial; and I now offer for sale as handsome land, and intrinsically as valuable, as can be found within fifty miles of the City of New York, in any direction, in lots of five acres or more, for the sum of from \$20 to \$30 per acre, or exchange for city property.

Any person wishing to purchase a five, ten, twenty, or fifty acre lots of good and handsome land, without one foot of waste or useless ground on it, can do so by sending one dollar per acre for first payment, and the further sum of fifty cents a month per acre until one-half is paid, when a warrantee deed and good title will be given, and the remainder part of the purchase money may be paid or secured on the land, to be paid within five years, with six per cent, yearly interest.

The title is perfectly good—I have a history or deduction of the title complete—certified to by legal men of the highest character, which I will send by mail, with maps, pamphlets and all information, to all purchasers, or those who wish to be informed of these Island lands, by applying to

CHARLES WOOD, Stationer, 208 Broadway,  
corner of Fulton-st. N. Y.

References as to the quality of the lands can be made to Hon. Henry Meigs of the American Institute, Rooms 331 Broadway. N. Y.; C. M. Saxton, publisher, Fulton-st. N. Y.; Dr. E. F. Peck, Brooklyn; G. H. Striker, Jr. New York; Liberty Gilbert, Troy, N. Y.; Geo. C. Morgan, Jr. New York; John C. Boeckel, N. York; J. C. Eaton, Editor of Northern Journal Lowell, N. Y.; O. Squires, Editor of Herkimer Journal, Rockton, N. Y.; Chandler Foster, Albany, N. Y.; V. B. Palmer, Philadelphia and Boston; E. H. Pease, Albany, N. Y.; D. Rounds, Mansville, Jefferson county, N. Y.; and many others. See pamphlet.

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# BLAKE'S

PATENT

## FIRE-PROOF PAINT.

The original and only genuine article that can be sold without infringing upon my patent. This article, in a few months after being applied, turns into slate or stone, forming a complete enamel or coat of mail over whatever is covered, bidding defiance to fire, weather, or water. It has been found, upon analysis by Dr. J. R. Chilton, of this city, to consist of larger proportions of silica, alumina, protoxide of iron, and magnesia, with lesser of lime and carbon. The transition, therefore, from the soft paint to the hard slate is (in the opinion of Drs. Chilton and Lock) accounted for according to nature's own laws; and the longer it is on, the harder and more permanent it becomes. It has been tested about seven years, and that first applied is now like stone. It has also been tried in several fires in Akron, Ohio, where all the fire insurance companies have since published that they will insure buildings, &c., covered with this substance, at a lower rate of premium than those covered with tin or zinc, considering it a better fire-proof.

The Fair of the American Institute have, for the last three years, awarded to me the highest premiums. Diplomas have

also been presented from the New-York State Fair, and the State Fair of Massachusetts.

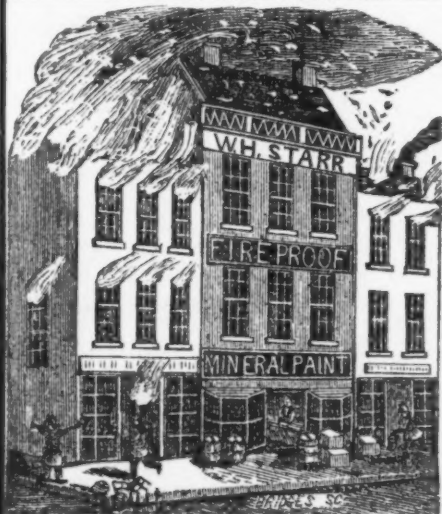
LOOK OUT FOR FRAUD,

As there are scores of unprincipled individuals digging, grinding, and endeavoring to sell all kinds of worthless, counterfeit stuff, calling it fire-proof paint. No one can manufacture and sell the genuine without infringing on my patent, which, having been submitted to referees, and also to the Hon. Daniel Webster, is decided to be good and valid. I have just commenced three suits against different parties, and am determined to prosecute every person who infringes the patent; and those individuals who have given credence to the pirates will soon have an opportunity of defending themselves before a court of justice.

The original and genuine Patent Fire-Proof Paint, either in dry powder, or ground in oil, can at all times be had at the general depot, 84 Pearl st., New-York, from the patentee.

W. BLAKE.

My '52.



## THE DREADFUL RAVAGES

OF

## FIRE!

MAY MANY TIMES BE ENTIRELY PREVENTED, BY USING

THE

## GENUINE OHIO

## FIRE-PROOF PAINT.

This invaluable Mineral Paint is one of the most extraordinary mineral products in the West, being very **Economical in Expense, Impervious to Water, Indestructible by Fire, and perfectly simple in its application.** For all kinds of Wood, Iron, Tin, Cloth, Brick, and Stucco Work, it is the best article ever applied, and most admirably adapted for every purpose where paint of any kind can be successfully and cheaply applied.

Its efficacy in preserving wood from decay, iron from oxidation, and brick-work and masonry from dampness, is peculiar and positive. Its **incombustibility** is also remarkable, forming a good protection to roofs and buildings of wood from burning, and falling flakes of fire.

For Wood or Brick Cottages, Villas, &c., it cannot be too highly recommended. For MANUFACTORIES, CHURCHES, and PUBLIC BUILDINGS, nothing can exceed it; and for all Railroad purposes, for painting BRIDGES, CARS, DEPOTS, &c., it is invaluable. It is now being used at the West for STEAMBOATS, with great satisfaction, and will doubtless soon supersede White Lead for that purpose. For COACH, CARRIAGE, CAB, CAR, and CABINET MAKERS, it is said to be a perfect desideratum, forming a surface as hard as marble, and receiving a polish as beautiful as porcelain. For all descriptions of out-buildings, fences, and particularly ROOFS, its value can scarcely be calculated—changing in a few months from a paint to a slate or marble coating, resisting both fire and moisture. The

natural colors of the paint are *dark drab* and *chocolate*, which, however, if desired, are easily changed to any shade, from a drab to a stone, or dark slate color.

**WARRANTED PURE, AND NO INFRINGEMENT,**

AS THE FOLLOWING CERTIFICATE WILL FULLY SHOW.

A CARD TO THE PUBLIC.—In my circulars and advertisements, in which I have cautioned the Public against any infringement of my Patent Fire and Water Proof Paint, I had no reference to a Light Colored article, of Different Shades, sold by Mr. W. H. STARR, No. 67 Beekman street, in this city, nor are they intended to interfere with its sale or use.

New-York, June 26, 1849.

WILLIAM BLAKE.

**BEWARE OF FRAUDS!**

The GENUINE FIRE-PROOF PAINT, *direct from the mines*, can always be obtained, *without delay, warranted pure*, of the subscriber, who has the highest testimonials of its superior valuable qualities; and specimens of the paint applied, of ALL THE VARIOUS SHADES OF COLOR.

All orders for the *Genuine Article*, by the barrel or ton, either dry or ground in oil, will be supplied at REDUCED PRICES, by

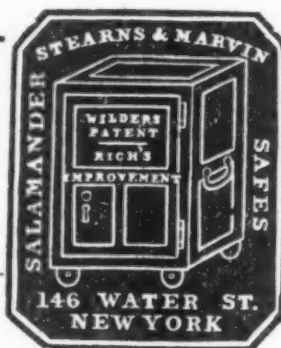
**W. H. STARR, 67 Beekman Street, N. Y.,**

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GENERAL AGENT FOR THE UNITED STATES.

# WILDER'S PATENT SALAMANDERS, WITH RICH'S IMPROVEMENT.

The only Safes with Wild-  
COMBINED, ARE MADE BY  
146 Water St.,



er's Patent & Rich's Patent  
STEARN'S & MARVIN,  
New-York.

The sole Proprietors of Rich's Pa-  
er's Patent with

tent, and joint Proprietors of Wild-  
Silas C. Herring.

THE GREAT FIRE IN CHILLICOTHE, ONE THIRD THE  
TOWN BURNT TO ASHES!

CHILLICOTHE, OHIO, Tuesday, April 13th, 1852.

MESSRS. STEARN'S & MARVIN—Gentlemen: Yours of the  
5th is at hand. In reply, every Safe in the fire, except yours,  
has proved good for nothing. I lost a large Safe—it was per-  
fectly destroyed; but in the small Salamander I bought from  
you, nothing was injured.

Your obedient Servant, W. T. CLEMONS.

The above letter shows that in a real hot fire RICH'S SALA-  
MANDERS are the only Safes to be depended upon. In the  
Pearl street fire, eleven Safes, of different makers, were totally  
destroyed, Rich's Safe alone bidding defiance to the flames,  
preserving notes, bonds, and mortgages, to the value of  
\$100,000. The Chillicothe fire is a parallel case—every Safe  
but Rich's is destroyed. These repeated occurrences prove in-  
contestably that Wilder's Patent Salamander, with Rich's im-  
provement, are the best Safes made in the United States, or in

the whole world. They can be had at the depot, No. 146 Water  
Street, and at the Factory, corner of St. Mark's Place and  
Avenue A, New-York. STEARN'S & MARVIN.

ALSO AT THE FOLLOWING AGENCIES:

Isaac Bridge, New Orleans, La.; L. M. Hatch, Charleston, S.  
C.; Thompson & Oudesluys, Balt., Md.; Holyoake, Lowndes &  
Co., Memphis, Tenn.; Eddy & Morley, Toledo, O.; Allis &  
Howes, Evansville, Ind.; S. Shephard & Co., Buffalo, N. Y.;  
Walter K. Marvin, Lockport, N. Y.; Barney Brothers, Mobile,  
Ala.; Chas. H. Campfield, Savannah, Ga.; Hall and Moses, Col-  
umbus, Ga.; DeRosset & Brown, Wilmington, N. C.; W. Ran-  
dall, St. Paul, M. T.; Morley & Reynolds, Cleveland, O.; Alfred  
Wright, Roch., N. Y.; J. Hutton, Montreal, Ca.; Starr & Mason,  
Camden, N. J.; J. H. Westcott, Plattsburgh, N. Y.; Ashley  
Brothers, Ogdensburgh, N. Y.; A. B. Merriam, Oswego, N. Y.;  
Dana & Co., Utica, N. Y.; Norton, Bradley, & Co., Syracuse,  
N. Y. 1 yr. Jy. '52

## M. B. BRADY'S NATIONAL MINIATURE GALLERY,

Nos. 205 & 207 BROADWAY, corner of Fulton St.,

NEW-YORK.

## HUGH CAMERON, GENERAL AGENT FOR PUBLICATIONS,

THE ART UNION OF PHILADELPHIA,

AND THE MOHAWK VALLEY FIRE INSURANCE COMPANY,

TODD'S BUILDING, PENNSYLVANIA AVENUE,

WASHINGTON, D. C.

MR. C. IS ALSO AGENT FOR THE PLOUGH, THE LOOM, AND THE ANVIL.



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